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Practical and Progressive Agriculture, Horticulture,
Trucking, Live Stock and the Fireside.

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Agriculture is the nursing mother of the Arts.—XENOPHON.
Tillage and pasturage are the two breasts of the State.—SULLY.

70th Year.

RICHMOND, VA., JULY, 1909.

No. 7.

Farm Management.

WORK FOR THE MONTH.

When writing the article on work for the month for the June issue on the 20th of May we congratulated our readers that the much needed rain had at last commenced to fall and we hoped for a few days continuance so as to give the crops just planted a nice start and put unplanted land into good working condition again. Instead of this we have had to this writing a month during which we have had more or less rain every day in this middle section of the State and both in the eastern and western sections abnormal rains more or less continuous during the whole month. Whilst these rains have not been so heavy in this State as to cause floods in the rivers except to a limited extent in small sections yet they have been sufficiently heavy to make the rivers run brimful and have so soaked the land as to cause serious injury to many crops and much hindrance to work in the land. Corn has been badly cut off by the worms and much replanting has had to be done. In the Tidewater section of this State the damage done to the early Irish potato crop has been very serious, much of it having rotted in the land. It is estimated that this will entail a loss of \$250,000 to the truck farmers of that section on this one crop alone, and the sweet potato crop is also badly injured. During the last two or three days previous to this writing (21st June) the weather has been finer and it is to be hoped that this will continue as both wheat and winter oats are needing cutting badly and suffering injury. Much hay has been so badly injured by the rain as to be worth little more than for bedding and that still to be cut is much reduced in value from lodging and rotting. This latter loss may, however, yet largely be made good by abundant second crops which are growing fast wherever the first crop has been removed from the land. This is not a very cheering outlook for the year. However, it may be hoped we have seen the worst of this weather and that we may have opportunity given to endeavor to make good the losses already sustained. Usually a long wet time like we have had is followed by a dry spell and thus the seasonal rainfall is balanced up. We are hopeful this will be the case this year. We have sufficient moisture in the land if it is conserved to carry most crops already

planted to near maturity and it will be the part of good husbandry for farmers so to manage the cultivation of their crops as to conserve this and to proceed at once to plant such other crops as will yet enable them to make the year an average one in productiveness.

The reports as to the condition of the winter wheat crop are not encouraging. In Kansas, which grows nearly one-fourth of the winter wheat of the country the yield is likely to be greatly reduced from the effects of drouth and in some of the other Western States damage has been done by too much rain. We see no reason to alter the estimate we placed on this crop last month in that it will not exceed 400,000,000 bushels and may be even less than that by 10,000,000 bushels. The spring wheat crop planted is about six per cent. larger than that harvested last year and though it has been got in a little late is now making good growth. We estimate the yield of this crop if conditions are normal to harvest at about 260,000,000 bushels. The whole wheat crop will thus be about 660,000,000 bushels as against 660,000,000 bushels a year ago. This crop in the face of greatly depleted stocks both here and abroad and with no indications of increased yields in European wheat growing countries would seem to make any serious fall in the price from the present high level very unlikely. It is certain that to feed our own population and for seed for the next crop we shall practically need all the wheat we are going to harvest this year and European nations which will need much wheat will have to be supplied from elsewhere. Whatever we export we shall have to supply from the small reserve now in stock which is less by 12,000,000 bushels than it was a year ago.

The oat crop of the country is sown on about 32,400,000 acres, which is the greatest area ever sown in that crop in this country. The condition is 83.7 as against 92.9 last year at the same time and a ten years' average of 83.4.

The indications so far as at present known point to an increase in the area planted and to be planted in corn. The South has the largest crop ever planted. As we indi-

cated in our last issue corn is taking the place of cotton in many sections, the cotton crop being less by 1,600,000 acres than last year. It is said that Louisiana will have over 60,000,000 bushels of corn this year or double what it grew last year and will be able to supply its own needs and have a surplus to export. We are glad to record this fact and to know that other Southern States have also increased their crops. When we keep our own corn crib at home instead of in the West we shall begin to keep also our meat house in the same place and this means millions of dollars kept at home for the development of our great resources.

As soon as the land is dry enough to work every energy should be devoted to pushing the corn crop by frequent cultivation. Wherever stands have been so injured by the worms as to be very thin we would work the land up again and replant in yellow corn, continuing this replanting up to the 15th of the month. With an average season and frost delayed as late as the 15th of October yellow corn will make a matured crop put in as late as the 15th of July. For several years past the fall has been very much later in setting in and it would seem as though we might now calculate upon open weather and freedom from killing frost up to nearly the end of October. At the last working of the crop sow cowpeas, crimson clover, vetches, red and sapling clover or a mixture of all these. They will make a cover for the land, and fall and winter grazing, and a good fallow to plow down in the spring for the next crop. If the corn land is to be put into wheat it is not worth while to sow any of the clovers or the vetches but sow the cowpeas alone and let these be cut into the land with the disc harrow instead of being plowed down as a preparation for the wheat crop. Land well prepared for the corn crop and kept well cultivated during the growth of that crop does not need to be re-plowed for wheat. It will be in an ideal condition to make a wheat crop with a cowpea crop cut in with the disc and such a preparation will prevent much winter killing of the wheat by the protection which the cowpeas will afford when cut in lightly.

Keep the cotton and tobacco crops well cultivated to encourage growth. We hear that a full average crop of tobacco has been planted though in some sections the heavy rains have injured the stand. Sow crimson clover in the cotton crop at the last working. Twelve or fifteen pounds of seed should be sown per acre and this will make a crop which will add humus and nitrogen to the soil, which will many times repay the cost of seed and labor.

As soon as the wheat and oat crops are cut put in the disc harrow and cut up the stubble and sow cowpeas or a mixture of the two. Do not wait until the grain has been threshed out to do this work. Cut up the stubble between the shock rows and seed this portion of the field at once and then cut up and seed the shock rows after threshing the grain out. The land will be much more improved growing these crops than growing the customary rag weed crop and the cowpeas will make a hay crop and the crimson clover a winter cover crop and a good fallow for the spring crop. In this way the fertilizer bill can be

materially reduced and the condition of the land be rapidly improved. What all Southern land most needs is humus in the soil and if these crops are used for no other purpose than this they will amply repay the cost of seed and labor.

Sorghum, sorghum and cowpeas and millet should be seeded at once in order to make feed for stock and save the hay crop. If these crops were grown to anything like the extent to which they can be grown in the South the whole of our hay crop could be well made into a sale crop, and yet the numbers of our live stock be greatly increased and they be well fed all the winter. Millions of tons of hay come into the South every year from the West which could well be supplied from our own farms and yet not pinch our stock for feed. With these forage crops and a light feed of grain or, better still, with some of the abundant cotton seed meal of the South which we ship to Europe to feed stock there, our own stock could be well fed and the necessity for buying much meat from the West be avoided. Sow from three pecks to a bushel of sorghum to the acre, if sown alone; or half a bushel of sorghum and half a bushel of cowpeas per acre, if sown together. Sow a bushel of German millet per acre.

Corn to fill the silo should be planted at once if not already planted. Plant in rows three feet apart and a foot apart in the row. Put in in this way and cultivated two or three times, it will make a crop with a fair proportion of ears and the fodder will be well matured and make sweet and satisfying silage. If you have not a silo and keep half a dozen cows you ought to have one at once. It is the cheapest barn a man can build and keeps the food in a better condition for feeding to get the best results than any other way.

The following table will enable any one to calculate the size of silo he will need for his crop and stock.

Estimated size of silo needed and number of acres required for a given number of cows for a feeding season of one hundred and eighty days:

No Cows	Estimated Consumption of Silage Tons.	Size of Silo Needed. Diam. Ht.	Average Acres Corn Needed.
6	20	9x20	1 to 2
9	30	10x22	2 to 3
13	45	11x25	3 to 4
21	74	13x30	5 to 6
25	90	14 30	6 to 7

Dwarf Essex rape may be seeded in this month and August for fall and winter grazing for the hogs and sheep. This is one of the most valuable hog and sheep grazing crops which can be grown. Sow at the rate of four or five pounds to the acre broadcast, or, if sown in drills, make them two feet six inches apart so that the crop can be cultivated, and in this case three pounds of seed will be sufficient per acre. If the land is not rich, apply two hundred pounds of acid phosphate and fifty pounds of muriate of potash per acre broadcast and work into the soil before seeding. An acre of good rape has been proved to be equal to three thousand pounds of corn

in feeding hogs or sheep. The best results are obtained by feeding a small grain ration to the hogs every day when in the rape.

Buckwheat may be sown this month and as late as August. It will make a crop on land too poor to make a profitable yield of almost any other crop, but, of course, like all other crops, does best on land in a good condition of fertility. Prepare the land well and sow a bushel of seed to the acre. From fifteen to forty bushels to the acre can be made. The grain is good feed for hogs, chickens and cows.

August and September are the two best months in the year for the seeding of grass. It is not too soon to begin to make preparation for this work. At the outset, let it be clearly understood that it is no use to try to grow grass successfully on poor land. Therefore, in selecting the land to be seeded, see that it is the best you have, well drained, as free as possible from weed seed, not subject to overflow, well filled with humus and decayed vegetable matter. A good loam soil is the best, not too heavy and not too light, and, if possible, it should have a good clay subsoil. When in good order for plowing, break it deeply, but do not bring the subsoil too much to the surface, but set the furrows on edge so that the top and the deeper soil can be easily mixed together. Then apply a ton of lime per acre broadcast and harrow in lightly and let lay for a week and then commence to work it with the harrow and roller in order to bring it to a fine, deep seed bed and to induce the weed seeds to germinate. Work in this way once a week until the end of August, by which time most of the weed seed should have germinated and been killed. Before the last working apply two hundred and fifty pounds of bone meal, two hundred and fifty pounds of acid phosphate and fifty pounds of muriate of potash per acre broadcast, and work this in during the further preparation of the seed bed, and then you may reasonably expect to secure a stand of grass which will last for many years if well cared for. In our next issue we will advise as to the seeding and further care.

Don't neglect to get a piece of good land into order this month and to give it either a good dressing of manure or an application of two hundred and fifty pounds of acid phosphate and fifty pounds of muriate of potash per acre upon which to sow rutabagas and turnips for winter feed for sheep, hogs and cattle. No man who keeps sheep, especially ewes to lamb in spring, should be without rutabagas or turnips for them. They are of more value in carrying lambing ewes through the winter and bringing them to lambing in good condition than any other food and will cause the ewes to milk freely and the lambs to do well. For hogs also they are useful and cows never fail to make good use of them. We have fed a bushel of turnips per head per day to cows all through the winter with excellent results. They make the best crop sown in rows two feet six inches apart and thinned out so as to stand six or eight inches apart in the row. Two or three pounds of seed will sow an acre in this way. If sown broadcast, sow four pounds per acre. If sown in

rows, they should be cultivated two or three times and be worked out in the rows with the hoes. Grown in this way, we have made thirty tons to the acre of rutabagas and twenty-five tons to the acre of turnips.

ALFALFA IN THE VALLEY OF VIRGINIA.

Editor Southern Planter;

In response to your request of recent date, I will give you a brief account of my success with alfalfa on clay upland, on a Shenandoah county farm. I had never seen alfalfa grown successfully on stiff upland clay, but, from what I had read of this wonderful plant, I believed it could be grown on such ground with perfect success were its other well-known demands complied with.

When I came into possession of this farm (which, by the way, has been "in our family" for three generations) and moved onto it five years ago, there was growing on a small field of six acres a wheat crop, which later yielded forty-two bushels, or seven bushels per acre. Originally, this was good ground, but poor plowing and bad farming had gotten it into sorry plight. I proceeded to get it into better condition, and how well I succeeded the grand growth of alfalfa now adorning it tells in a more eloquent way than I can possibly do. In reclaiming this little field I have had a crop on it every year I have owned it, and each crop better than the one before it, but that is another story.

In July of last year I broke the field with a No. 361 (three-horse) Syracuse plow and began in earnest to prepare it for alfalfa. After thoroughly plowing it, I made a drag of two railroad ties spiked together with 2x4 scantling and dragged it. I next rolled it with a steel roller, then applied two and a quarter tons of good, hot-air slaked lime per acre, spring tooth harrowed in the lime at once, then disced it, lapping half; again dragged it and rolled it. Having plowed it when it was in excellent order, the subsequent work was not for the purpose of crushing clods, as might be inferred, but for the purpose of firming the ground thoroughly and to have the surface as smooth as a floor. I now had it in such fine condition that further working it would not have been of any benefit. With grain drill I drilled four hundred and twenty-five pounds of 12-5 fertilizer per acre, after which I attached a heavy piece of 2x4 scantling to the rear of spring tooth harrow and harrowed in the fertilizer, going across the drill furrows, leaving the ground as level and smooth as a table top. It was then ready for the seed, and having gotten my seed from a thoroughly reliable source, and found it absolutely clean, having inoculated it myself with material obtained from our Experiment Station, I proceeded to sow it at the rate of twenty-five pounds per acre with a cyclone seeder, following with drag harrows to cover the seed and these with the roller to firm the seed in and bring up the moisture. I felt I could have more than a "reasonable hope" to, in due time, see the little field green in its glory; and, if any one should ask you, you may tell them I am more than satisfied with the result, seeing the first cutting yielded two tons to the acre, six tons of which I lost on account of rains. A part of it I got in the barn in fine shape the 31st of May, cut the remainder the 1st of June, and it was wet from that night until the sixteenth of the month.

Notwithstanding all the punishment it took from the the weather, I had it on the safe side until Sunday, the 13th, when we had a half-inch additional rain which so thoroughly soaked the hay and the ground that all I could do was to get it off the following crop as promptly as possible. The first cut over part of the field is now eighteen inches high.

In conclusion I want to say that the bacteria obtained from our Experiment Station thoroughly inoculated my seed. The roots are well set with nodules. I believe there is very little land in this valley that will refuse to grow alfalfa luxuriantly if given proper encouragement.

Shenandoah Co., Va.

R. L. CAMPBELL.

EFFECT OF FERTILIZER ON POOR LAND.

Editor Southern Planter;

In recent months there has been quite a disposition on the part of some writers in your columns to make fun of the use of the lower grades of fertilizers, and I do not believe you have even been enthusiastic over the use of any of them. I am sending you a photograph of a field of tobacco grown on some poor land in Fluvanna, but not on Carysbrook. By accident, my manager on the farm where this tobacco was grown left one row without fertilizer; about the time of the second working of the crop I happened to be there and noticed a marked difference between one row and the balance. After I got the explanation I instructed the manager to put on some of the fertilizer on a part of the row and to leave the remainder without any.



The photograph was taken a few weeks before cutting time. The rear of the central row is that on which the late application was made where none had been put before, and the part of the row in the foreground was where none at all was put. You will notice a marked difference between the late fertilized and the early in favor of the latter, and where none was put at all the tobacco was not large enough to justify cutting; in fact, it is hardly visible in the photograph. The application was four hundred pounds of a 3-8-3 goods. I let a neighbor put in a small field on this same place in buckwheat, on which he used one hundred pounds per acre of the same fertilizer; accidentally, his guano attachment at one part of the field got out of order and he sowed

one or two widths of his drill without guano; when in full bloom I saw the crop; the guanoed part was about waist high while the rest was only about ten inches; the fertilized part made eighteen bushels per acre and the other was not worth cutting.

With the testimony of the camera and the facts that I have related, what becomes of the ridicule of those who have made so much fun of the small percentages of ammonia and potash used in the low grade fertilizers?

C. E. JONES.

A SUCCESSFUL (NEW YORK) TOBACCO FARMER.

Editor Southern Planter;

About five miles from the thriving town of Baldwinsville, Onondaga county, New York, is situated the well-tilled farm of Mr. C. S. Keller. A visit to this up-to-date establishment would show that the owner is in no need of a visit from ex-President Roosevelt's Commissioners to inquire into the condition of the farmer, as here would be found everything that goes to make a city house comfortable—a telephone, a furnace in the cellar, acetylene gas, hot and cold water in the bath, running water in the kitchen, barn and stable, etc.

Mr. Keller follows a system of mixed farming, as he believes that it is more profitable than having all his eggs in one basket. He has a herd of dairy cows, principally Holsteins, which hold the highest record at the local creamery for both quantity and quality. He also keeps a sufficient number of hogs and Plymouth Rock fowls to consume the skim milk.

He is a great upholder of the old fashioned red clover and does not think a man can farm without it. His general rotation is a five year one—corn, oats, wheat, hay, pasture. He uses fertilizer liberally on all the grain crops. He is satisfied that his light gravelly soil requires a large amount of potash. His favorite formula for oats, corn and potatoes is 2 per cent. nitrogen, 8 per cent. phosphoric acid, and 10 per cent. potash. For his hay crop he seeds with a mixture of two quarts alsike, six quarts medium red clover, and six quarts timothy. This gives him a hay almost entirely clover the first year, and does away with the need of buying large quantities of expensive protein feeds, which reduce the profit of the average dairyman so greatly, while the timothy and alsike come on the second year and thicken up the pasture.

He has done some experiment work with fertilizers in his meadows and finds that a 10 per cent. phosphoric acid and 8 per cent. potash mixture give good results, greatly increasing the growth of clover. This is what would be expected, as clover is a heavy potash feeding plant, as has been proven by recent experiments at Cornell University with fertilizer on old hay fields, where the plots which had received applications of potash had a strong growth of volunteer clover, although no seed was sown. The increase in the amount of hay on the potash fertilized plots was due almost entirely to this volunteer clover.

Mr. Keller has been very successful as a breeder of Plymouth Rock fowls, which is due largely to his skill in feeding; in fact, he goes so far as to say that if he has the handling of the fowls early in the season he can make any flock lay by giving them well balanced rations.

One of his requirements is plenty of cabbage and other green feed, also of meal and scrap meats.

Tobacco, however, is his specialty, and his land, which is of a gravelly, loamy nature, with a gravelly subsoil, is very favorable for the production of a superior quality of wrapper tobacco, for which Onondaga county has long been noted.

Mr. Keller believes that special crops, like tobacco, will pay for special fertilizer. He uses liberal quantities of a special formula of his own mixing, which analyzes about 4 per cent. nitrogen, 6 per cent. phosphoric acid, and 10 per cent. potash. He takes special pains to see that there be no muriate of potash or kainit in the mixture, which will produce a poor burning tobacco. The carelessness of the farmers who disregard this point and buy fertilizers containing either of these forms of potash, because the fertilizer is \$1 or \$2 cheaper, has caused them great loss, owing to the poor burning quality of the tobacco, and it has been the cause of much of the prejudice which exists among tobacco buyers in many parts of New York State against the use of commercial fertilizers on tobacco.

Mr. Keller has also been experimenting with clover and vetches in the last cultivation of tobacco, hoping by this means to keep up the humus and supply the expensive nitrogen on which continual growth of tobacco makes large demands.

Of the above mentioned mixture he uses about one thousand pounds per acre broadcast well worked into the soil, and then about two hundred pounds of the same is used in the drill as a starter.

G. F. MARSH.

PLOWING.

Editor Southern Planter:

When I made my remittance a day or two since I wanted to say a word or two on the subject of plowing. "Old Farmer," page 473, just touches the pith of the subject in what he says about the "live man or boy."

There are no youngsters learning the trade, the science, the art. Few men to-day know when the team is hitched to the plow just right, or the plow adjusted properly to the work in hand. As a boy, our "town show" (and its the best and most instructive to youngsters) gave first and second prizes to minors (boys under seventeen years) to "strike out," plow six inches deep, and finish alone one-eighth acre of sod. My favorite team as a minor was two yoke of three year old Devonshire steers I had broken. I did my first stunt in public at our town show ploughing match. The Secretary of our county show who was present offered me \$25 per day to show my team, and to plough, and if I won it was to have the first prize—\$10 cash. The Secretary of another county show was present, and for \$25 per day (four days) and all expenses, and a tilt at the plowing match, and first prize, if I won it—\$15.

At the first county show there scored fifteen competitors, and at the second there were so many entries all could not compete, so we cast lots and twenty scored. I learned more about plowing at these two shows than I had learned up to that time. My steers' stalls were filled with old grey-haired farmers and my plowing was

criticized favorably and unfavorably. In both contests I was awarded first prize. My best card was my ability to lay the last or dead furrow. I drove the steers alone and received no assistance to strike out or finish my land.

H. E. J.

Lake Waccabac, N. Y.

HARVESTING COWPEA HAY.

When the first pods begin to ripen the cowpeas are ready to cut. Mow in the forenoon. In the afternoon rake and make up in small, compact piles. They should be carefully built, high and narrow—say, thirty inches in height and about as wide at the bottom. This is continued day by day, until the whole crop is cut. The vines, in a green, slightly wilted state, settle down, leaves overlapping, and being heavy in the centre, and sloping evenly at the sides, make a perfect watershed; rain does not penetrate the mass. The piles should be left undisturbed until perfectly dry and cured. The sun and weather will bleach the outside, but the inside will be green and sweet. All hay should be air-cured, but not sun-dried; hence, the advantage of raking while partly wilted and curing in the cock. If hay is allowed to cure in the swath it loses much of its value by bleaching, and the leaves shatter in raking. When dried and cured hay is put in piles it does not pack, and rain goes through it like a sponge. Hay stacks should always be topped off with green stuff—swale hay or coarse grass of some sort; this makes a solid waterproof roof, because it settles down, by its verdant weight, to a closely woven, compact mass.

The weather favoring, cowpea hay will cure in four or five days, but if rain interferes the piles should be left undisturbed until dry. They may be left three weeks without injury.

When ready for hauling to the barn, if the vines are cured, but damp, begin about ten o'clock and turn each cock over with a fork, and the whole mass will soon dry out. Care should be taken not to tear the piles apart; handle each one as a separate "wad" as far as possible in loading and placing in the mow. This keeps the leaves from shattering and the hay occupies less space in the mow and perhaps keeps better.

This system costs nothing for poles; there need be no worry on account of foul weather, except for such hay as may be left in the swath; the leaves, which constitute the best part of the plant, are preserved in the very best condition, and loading and unloading is conducted with the most economical expenditure of labor.

The value of cowpea hay in stock feeding is better understood than ever before, and ignorance of a safe and practical method of harvesting has alone stood in the way of a larger use of this crop.

R.

We would advise caution in not putting the peas up into cock too soon. We would draw into windrow as soon as well wilted and let stand a day in this shape before cocking. Then cock and let stand to cure out, always sunning the bottoms and centre of the cocks for an hour or two before hauling to the barn. The hay will then go into the barn with sufficient natural moisture in it to heat and come out fine, sweet-smelling hay. Be careful

to have no water or dew in the hay when stored, or it will mould and may fire.—Ed.

NOTES AND COMMENTS ON MAY PLANTER.

Raw Phosphatic Rock.

Editor Southern Planter:

Mr. Jack's experience is similar to that of others. The fact is, that the chemists still know little about what nature does with the materials placed in the soil. I met at Allentown, Pa., a year or so ago, at the State Institute, a farmer who asked my opinion about the use of floats. I told him that in the presence of sufficient organic matter in the soil, I would prefer it to acid phosphate. He said that he was glad to hear me say so, for he and several of his neighbors had for several years been getting it from Tennessee, and using it on wheat with good results, and further than that, they were the only men in the neighborhood who were successful with clover, all the others using acid phosphate. I think that it will not be long before farmers in general will abandon acid phosphate for floats and basic slag. In fact, I am inclined to believe that the popular carrier of phosphoric acid in the future will be basic slag, if it can be had in sufficient amount, and at a reasonable price. The large percentage of lime in it prevents the manufacturers from using it in their mixtures free, and the article will sweeten the soil instead of souring it, as the acid phosphate does, and the lime will tend to release potash for him in soils where it abounds.

Lime in Granite Soils.

The granite in the Hillsboro section of North Carolina is a gneis and, of course, like other forms of granite, carries hornblend. Such rock would contain about two per cent. of lime, but the soil that has resulted from the decomposition of the rock and other sources has not that much lime, certainly not after two centuries of cropping. As I remarked in the May number, I was not arguing against the use of lime on alfalfa, or that the application of the lime had caused the failure of the alfalfa, but simply stating facts. I planned an experiment there to test the need of the soil, but the owner failed to carry it out as I had designed, for, on passing the farm a few days ago on a visit to another North Carolina farm, I found the field in wheat, the second crop grown on the land since it grew fine alfalfa, and I expect another failure when he tries alfalfa again this fall.

I believe that on the great majority of soils applications of lime are absolutely essential to success with alfalfa. Mr. Franklin fears inoculation with soil from a successful alfalfa field. Of course, I would not take soil from a field I have not inspected, but the use of soil is the only practicable way to inoculate, for artificial cultures have long since proven failures.

Nitrogen.

Mr. Winkelman jumps to a wrong conclusion about the farmers who do not use nitrogen, and yet make large crops of wheat. Their lands formerly, when they were buying nitrogen made 10 to 15 bushels of wheat per acre. Since they have abandoned the use of purchased nitrogen, their land has advanced in productiveness. It is not comparable with the black soils of

Russia at all, nor to the black soils of Illinois, for these were old worn lands of clay loam. And I said twenty years, and not seventy, as Mr. Winkelman has it. And to-day these soils have increased in nitrogen. An English bulletin reports that on plots that have received nothing but phosphoric fertilizer for eleven years, there is more nitrogen than in plots where sulphate of ammonia and nitrate of soda have been annually used in connection with the phosphatic fertilizer. In Minnesota, after ten years of a rotation with legumes, and no nitrogen bought, there was 300 pounds more nitrogen in the soil than when the rotation was begun. I do not wonder that German farmers buy nitrogen when only six per cent. of the crops are legumes. When the legumes occupy equal spaces with other crops in a regular rotation there are very different conditions in the soil. The wheat farmers of Maryland have tried purchased nitrogen for many years, and made small crops; but their success in wheat growing came after they had dropped the nitrogen. Mr. Winkelman thinks that all farmers cannot use the legumes for the acquisition of nitrogen. I cannot see why any grain farmer cannot do this. It is simply getting nitrogen free of cost, and making a profit in getting it, instead of going into your pocket and enriching the fertilizer men. The day is not far distant in this country when the farmer who buys ammoniated fertilizers will be looked upon as behind the times, and a poor farmer.

Dual Purpose Cows.

I would like to ask Mr. Luttrell where there is dual purpose stock that the calves sell for \$75 to \$100! I would like to ask him if any dual purpose animal ever topped the beef market, or made the record as a dairy animal! There are milking shorthorns, but they have been bred to dairy type, and are simply big dairy animals, and will not make the fine beef that pure beef-bred animals will. Just as well call the Holsteins beef animals, because they are large. When and where did a yearling steer from a dual purpose cow bring \$60. If so, what did it cost to feed him to that weight! for he must have weighed not less than 1,000 pounds, and that is a fine weight for a pure blood beef animal, and if she was a deep milking cow, the chances are that he would not dress out near as much high priced beef as a pure blooded beef animal. If a farmer's interest is in dairy products there is not much money in losing \$75 worth of dairy products in order to get \$60 for a yearling. I take it that Mr. Luttrell is a beef man, for it is always a beef man that rises to defend the dual purpose cow. The capacity for giving the greatest amount of milk and butter is so radically antagonistic to the making of the finest beef that they cannot be combined in one animal, and the more milk you get from a so-called dual purpose animal, to that same extent, it becomes a poorer beef animal. You cannot breed an animal into fine dairy type and fine beef type at same time. Mere size does not make a beef, for you may make a Holstein as fat as you please, and the smart buyers on the market will not give the best price for it, for they know that a large part of that fat has gone into inside tallow, and the animal's loins are not such as give the best beef.

W. F. MASSEY.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

Plant successional crops of sweet corn, lima beans, pole beans and black eye peas at intervals of a few days all through the month to keep up the supply for the table and market as late as possible. Cucumbers for pickles should be planted. This is a crop which in many sections is a profitable one and has the advantage that it need not be rushed to market as gathered. The pickles packed down in barrels in brine will keep until winter, when they can be shipped or taken to market as required and at convenience. The crop should be planted in rows two feet six inches apart and from nine inches to a foot apart in the rows. Cultivate frequently, but only when the vines are dry or they will mildew and die. The land should be in good order, but need not be over-rich, as the object is not to grow large cucumbers, but a large number of small ones three or four inches long. A fertilizer with an analysis of 5 per cent. ammonia, 5 per cent. phosphoric acid and 7 or 8 per cent. potash will be a proper one to use to help the crop. Such a fertilizer can be made by mixing 200 pounds nitrate of soda, 800 pounds fish scrap, 700 pounds acid phosphate, and 300 pounds muriate of potash to make a ton. Use at the rate of 400 pounds to the acre. After the pickles commence to set the crop should be picked over every two days so as to secure the largest number possible of pickles of an even size, say, not more than three inches long, as these sell best.

Sweet potatoes should continued to be set out. If the slips are already all set out, then cuttings should be taken from the runners on the early set out plants. These cuttings make potatoes which will keep better than those raised from slips. These cuttings are simply the ends of the vines with three or four leaves attached. Bury all the cutting except the top of the vine with two leaves, and they will soon root in moist land. Longer cuttings of the vines should be planted to make seed for raising slips next year. Cut these off half a yard long and coil round the hand and bury except the tip end and two leaves. They will root at the joints and make a large number of small potatoes which make the best seed, as the potatoes raised from these will be free from the black rot fungus.

Continue to set out tomato plants for a late crop. If short of plants, they may yet be raised in a hot bed and be in time to make fruit before frost.

As the various crops mature gather and ship or store. Cool off well before shipping or storing. Onions should be pulled and be allowed to remain laid on the ground until dry and then be stored with the tops on on slatted shelves in a cool, dry shed until thoroughly cured, when the tops should be cleaned off and the bulbs be shipped as the market demands them. Potato onions, which are the first to ripen, should be shipped at once, as they keep

badly, but nearly always sell well at the opening of the season before the seed onions come on the market.

The Irish potato crop for winter use should be planted this month. The sets for this crop are supplied from cold storage and should be spread out on the barn floor to warm up gradually before being planted. As they warm up they will begin to sprout and may be then cut and planted. In connection with this cutting it should be borne in mind that potatoes should not be cut long before being planted. Investigation just made as to the cause of serious loss in the trucking section this year by potatoes failing to sprout has confirmed the fact that much of this loss was caused by cutting the potatoes too long before they were planted. They should be planted within three or four days after being cut, and the sooner the better. Plow out the rows deeply and mix the special potato fertilizer well in the soil of the bottom of the rows and then plant and cover lightly and work in the soil into the rows until they become level and keep level during cultivation. A fertilizer suitable for the crop may be made up of 800 pounds cotton seed meal, 100 pounds nitrate of soda, 800 pounds acid phosphate and 300 pounds muriate of potash to make a ton. Apply at the rate of 500 to 1,000 pounds to the acre.

The land should be gotten ready and the sets be planted for the second crop of Irish potatoes raised from the sets grown this spring. These sets should be sorted out as the potatoes are dug, selecting those of small, medium size, say, as large as an egg. These sets should be spread out in a shady place to green, and after they are greened should have a little woods mould or good soil sprinkled on them and they will begin to sprout. Every sprouted potato will make a good set, but those not sprouted should not be set. Do not cut the potatoes except to take off just a shaving at the end opposite the sprout. Plow out the rows deeply and mix the fertilizer with the soil well in the bottom of the furrow and then set and cover lightly and, as the plants grow, work in the soil into the rows until level, and keep level during cultivation. Potatoes grown in this way in the Eastern section of this State and North Carolina make better seed for growing the early crop than Northern sets. This year very little failure to germinate was observed in crops planted with second crop seed, whilst Northern grown seed failed badly. This should ensure a good sale for second crop seed another year.

Celery plants should be set out this month in the rows where they are to mature. If the plants are still small it may be better to transplant them into a bed to grow on for a month before finally setting them out in the rows. Where the plants are drawn and spindling cut off part of the top and root before resetting and thus secure stocky plants. Make the soil into which the plants are set as rich with manure and fertilizer as you can afford to do, as celery is a gross feeder and, to be fine, market-

able stalks, requires all the help it can have and plenty of moisture. If the plants are gotten into the rows at the end of this month or in August, they will be in plenty of time, as they will not begin to grow freely until the weather becomes cool.

SHENANDOAH VALLEY FRUIT GROWERS' ASSOCIATION.

Editor Southern Planter:

It has been demonstrated time and again, that the grower of farm products, no matter whether they be potatoes or fancy peaches, must co-operate with his fellow-growers in the packing and marketing of same. He must have an association to hunt up the market, instead of waiting for the market to come to him, if he expects to reap fair returns for his care and labor.

It has been pointed out repeatedly, how the Eastern Shore of Virginia Produce Exchange came into existence, only about ten years ago, in the two counties of Accomac and Northampton, devoted mostly to trucking. Prices obtained by the individual growers had fallen so low, that the growers, in some years, could not afford to harvest their crop. They could not realize enough from the sale of their potatoes to pay for digging them. By studying the different markets and distributing their goods to the best advantage, the Eastern Shore of Virginia Produce Exchange procured for its members fair returns. And from a total sales of \$500,000 in 1900, it has grown to sales valued at \$2,075,000 in the season of 1907. It has upwards of 1,000 members, and forty shipping points.

The Emporia Fruit Growers' Association (handling mainly grapes and strawberries) and others have realized that they must market their produce in the most economical manner in order to get the returns they have a right to ask for their labor.

The fruit growers, too, have realized these truths, and we now have two general organizations in the State: The Virginia Fruit Growers and Packers' Association, with headquarters at Crozet, and working mainly in Piedmont Virginia; and the more recently established Shenandoah Valley Fruit Growers' Association, which aims to handle the fruit output of the Shenandoah Valley, the famous garden spot of Virginia.

Incorporated under the laws of the State of Virginia in July, 1908, it has in less than a year grown to about one hundred members, with about five hundred shares of stock subscribed. Its main offices will be located at Staunton, in the center of the Valley. Its officers are: M. F. Gilkieson, Staunton, president; W. H. Frothingham, Front Royal, vice-president; J. L. Phillips, Blacksburg, secretary, and J. N. McFarland, Staunton, treasurer. Its Board of Directors are representative of the entire Valley.

The California Orange Growers found that local organizations could not cope successfully with the conditions confronting them, and so organized themselves in the Citrous Fruit Growers' Union, covering almost the entire State, and in this way they have built up a marvelously successful organization. The Eastern Shore of Virginia Produce Exchange, with one thousand members and forty shipping points, and the Georgia Fruit Exchange, covering the entire peach growing portion of Georgia, as well

as part of South Carolina and Tennessee, prove that the principle of large organizations is not only possible, but under the circumstances, the only method of procedure for a really successful organization.

Hon. A. McNeill, Chief of the Fruit Division of the Department of Agriculture of Ottawa, Canada, states that the St. Catharine Association of Canada, has 200 members, and purchased \$44,000 worth of supplies last season. He states further: "The St. Catharine people have adopted the plan of having a traveling representative in the Canadian Northwest. Sooner or later the federation of the various co-operative fruit selling associations must be an accomplished fact."

With all these facts before us, as to the necessity of a general association, if we are to reach the highest success, the Shenandoah Valley Association was organized with the view of gaining for the Valley of Virginia its true place in the apple markets of the world, and with a plan that will allow indefinite expansion within the limits of the desires of its members.

This is the age of specialization. One man cannot superintend all the details of the packing of fruit, selling of fruit, visiting the markets to see that everything goes smoothly there in the sales of the produce, etc. The idea of the Valley Association is to study the markets and, with the aid of a traveling salesman, when this is found to be feasible, sell the produce of the members of the Association, and find the points where this produce is most needed, consequently the place where the largest price will be paid, etc.

The general offices will also outline the method of packing, and will attempt to see that all fruit is equal to the specifications. By having each individual division of the Association stamp its name on the produce, it will be possible to check up, and find out whether or not the directions are being followed in every particular, and thus obtain a uniform pack over the entire territory covered by the Association. Each individual division of the Association is to have its representative, as far as possible, on the general Association Board of Directors, and in this way will be able to have its just proportion of influence in shaping and outlining the plans of the Association.

The division must have its own officers, and superintend the packing of its own fruit. In this way each division, by using its name on its produce, will be able to maintain its individuality, and build up its individual place in the market, while at the same time it will have the strength of the more widely known General Association in its favor.

The main objects for which the Association stands are:

First—To grow the very best fruit possible, by observing proper methods of culture, by spraying for protection against codling moth and other injurious insects and diseases.

Second—To grade and pack the fruit honestly and uniformly, and pay special attention to the appearance it will present, so that the best grade under the label of the Association will become synonymous with the best fruit packed in the best manner. All fruit not conforming in every particular to standards prescribed, will be sold at the best prices obtainable, but will not bear the label of the Association.

Third—To develop the sale end of the business, and to distribute the products where they will bring the best prices, by keeping in touch with, and directing sales for all the different shipping points in the Association.

Fourth—To develop storage facilities and the working up of waste fruit into marketable products.

Fifth—To procure for our members for cash such supplies as can be handled more economically in this way. We have this spring furnished members with all kinds of spray materials at a low figure; the large total quantity bought helps to procure the lowest quotations. We expect to extend this idea of purchasing supplies, where it can be done more economically than through local dealers, to packages for packing fruit, such as crates, boxes and barrels, etc.

That Virginia fruit is equal to any in appearance and size, and excels others in flavor, is conceded by all, not only by Virginians. Our greater proximity to markets gives us a decided advantage over Western growers, and we have the advantage over them in other matters, as well: Soil, climate, long life of trees, etc. A number of orchards are even now demonstrating that we, as well as the Western growers, can procure annual crops of apples instead of a biennial crop.

All growers interested in growing the very best fruit, and in the marketing of this fancy product to the greatest advantage, are invited to join the Association, and may address any of the officers, whose names are given above.

Virginia has been considered "too modest" in advertising her resources, particularly her orchard lands. Inquiries concerning prospects for the development of the fruit industry in our State come to us so frequently that we cannot but feel that interest has not only been aroused, but will continue; and we look forward to the time when "Shenandoah Valley Fruit" will rival "Hood River Fruit" in all respects.

M. F. GILKESON.

Augusta Co., Va.

PEACHES, CHERRIES AND PLUMS ROTTING ON THE TREES.

A number of inquiries were received lately by the Division of Zoology of the Pennsylvania Department of Agriculture for a formula for a spraying mixture to be used on peach, plum and cherry trees to keep the fruit from rotting. The answer of Prof. H. A. Surface, the State Zoologist, is as follows:

"The ripe rot, or brown rot, is due to a fungous disease, which attacks the ripening fruit of peach, plum and cherry trees, and is to be prevented by spraying before, or about the time the fruit is half grown with the self-boiled lime-sulphur wash. Into a barrel put eight pounds of fresh lime or quick lime, and eight pounds of sulphur, and into this pour four or five gallons of hot water, and cover it with a cloth to keep in the heat. Stir occasionally with a hoe or something to keep it from burning to the bottom, and keep it from settling too much. Let it remain an hour. Then dilute it to fifty gallons, and spray it over the trees. Cold water should be used for diluting. Repeat this after a hard rain; or, if it does not rain, repeat in a week or two; and continue until just before the fruit commences to

ripen, when there is no need to continue the spraying, because to spray it on ripening fruit means to discolor the fruit, and thus render it unmarketable, although it will not be poisonous, and will not be unfit for use, even though it should be stained by the spray liquid.

This self-boiled lime-sulphur wash is not recommended for scale insects, and it is not to be replaced by the concentrated lime-sulphur solutions now on the market, nor by the home-boiled wash, which we recommend as the best and cheapest material for treating scale insects. It is a different preparation, made by a different formula and method, and these materials should not be confused."

PEACH BORERS.

Editor Southern Planter:

For the benefit of your many readers who are engaged in peach growing, will you allow me a short space in your journal to give my experience in treating peach borers! I have been engaged in peach growing on a small scale for twenty years or more.

My first method was to remove the soil and expose the roots in cold weather, then replace it in the spring. I found this only partially satisfactory. I have also used waste tobacco around the trees, and found it very effectual in destroying worms and insects, and in promoting a very vigorous growth in the trees; but it is too expensive to be practical in a convenient way. Then I tried hunting them with wires, but never had much success with this method, and I felt, too, that the man with the wire was doing more damage than the borers. Six or seven years ago I commenced using lye for peach borers, and I have found it the cheapest and most effectual remedy that I have yet tried. I buy caustic soda in five-pound cans at five or six cents per pound. I dissolve a five pound can in twenty gallons of water, and let it come to a boil, this will make it strong enough to make good soap. I have already had a little of the soil taken from around the trees, so as to make a little basin to hold the lye. I now dip this boiling lye from the kettle and pour it around the trees, or rather, on them, as I wet them up to the limbs, at the rate of one to one and a half pints per tree—about one pint is enough for trees one and two years old; for trees three and four years old, it will take one and a half pints.

Borers never do much harm after the fourth or fifth year.

I use the lye early in the spring each year, and have never been troubled with borers since I have been using it; never look for them now. I use the lye on both peach and young apple trees, because I know that it pays, aside from killing the borers, in cleaning the trees. I have never seen any harm done by using the lye hot.

S. E. PUGH.

BLIGHT ON IRISH POTATOES.

Do not neglect to spray the Irish potatoes with Bordeaux Mixture to prevent damage by the early and late blights. The formula for mixing the spray will be found on page 478 (May issue). Spraying with this mixture two or three times during the growth of the crop will prevent injury and add greatly to the yield. See the May issue for other diseases affecting the Irish potato and tomato crops.

Live Stock and Dairy.

COOPER'S JERSEY SALE.

The Annual Memorial Day sale of imported Jersey cattle by T. S. Cooper & Sons, Coopersburg, Pa., proved a great success from every point of view. The offering consisted of 122 head, which fetched \$78,985, or an average of \$647 per head, which is very close to the high record made a few years ago in strictly boom times.

The astonishing feature of the sale was the high record price for a bull, Viola's Golden Jolly, he having been purchased by the Kinloch Farms, owned by Drs. C. E. Still and G. N. Lauchlin, Kirksville, Mo., at \$12,000. It will be observed that this bull topped the figure paid for Stockwell, two years ago, by \$500.

Another sensation was produced when Raleigh's Fairy Boy was knocked out to C. I. Hudson, of East Norwich, N. Y., at \$8,200.

It is gratifying to know that Virginia was well represented at the sale by the presence of Colonel A. M. Bowman, Bowmont Farm, Salem, Va.; Dr. J. D. Kirk, Glenburn Farm, Roanoke, Va., and A. Randolph Howard, Allendale Farm, Fredericksburg, Va. Colonel Bowman secured two magnificent daughters of Oxford Lad, one at a cost of \$2,225, and the other at \$1,025. Dr. Kirk got a splendid bull calf by Eminent's Goldmont Lad, and a beautiful heifer by Royal Majesty. Mr. Howard was very fortunate in not having to pay but \$235 for Mona's Handsome Fern, sired by Golden Fern's Lad, and out of the great cow, Eminent's Mona.

Dr. H. D. Rodman, of Shelbyville, Ky., was a heavy buyer, having landed twenty-one head; while C. I. Hudson ran him a close second, with seventeen animals, which cost him an average of over \$100 per head. W. R. Spann, Dallas, Texas, was also a liberal buyer, getting fifteen head for a herd he is now establishing. Virginians will remember Mr. Spann pleasantly, as having been the manager at the Lewisiana Farm, at Fredericksburg, for the last two years.

The Coopers are certainly to be congratulated on their grit and intelligence in offering the Jersey World each year such a magnificent lot of dairy cattle. We told the senior member of this firm on one occasion that we proposed to erect a monument to him after his death, but we were not quite sure whether it should be a shaft surmounted by a head of Golden Fern's Lad, or whether it should be simply a "Jersey" carved from the finest Parian marble.

SHEPHERD.

SHEEP AS A SIDE ISSUE ON SOUTHERN FARMS. *Editor Southern Planter:*

There is hardly a farm in the Piedmont or mountain sections of the South, but that would be benefited by having a small flock of breeding ewes to graze on it. Sheep, as everyone knows who has tried them, are great gleaners. Three-fourths of the weeds that are so troublesome on our cultivated fields would, within a few years, be killed out entirely were sheep allowed access to the fields at different times of the year. This would require that our farms be fenced. However, we believe this should be done any way, in order that our hogs could be run in different sections of the farm, and gather their feed

from the clover, cowpea and soja bean fields. There is enough feed wasted on half of the farms of the South each year to feed a good sized flock of sheep and a good bunch of hogs. This matter of waste will need to be looked after more carefully as the price of our farm lands advance, if we are to make interest on their enhanced value. A gentleman told the writer some time ago that he believed Sunny Home Farm to be the cleanest farm in North Carolina, devoted to general farming. However, this may be a large amount of the credit for the clean fields is due to the fact that we keep as a side issue from fifty to seventy-five breeding ewes on the farm at all times of the year, and there is hardly a square rod of land on the farm that doesn't feel the presence of the "golden hoof." Aside from what they pick up in the fields, the feed of these ewes is only a small amount of clover, pea hay, and some little corn silage, fed in severe weather, during the winter; and a light feed of grain for ewes and lambs in the late winter, before the winter grazing crops get their spring start. The ewes average about 125 per cent. of lambs per year that are sold to the local butchers for from \$5 to \$6 per head, and are all gone by the middle of August. The wool sold from the ewes averages around \$1 per head, so we receive an income of around \$5.50 per year for each ewe handled. The majority of the ewes are the common scrub stock of the country that we pick up wherever we can find them, at around \$4 per head, buying only young ones. As fast as their mouths begin to break, the aged ewes are fattened on pea vines or clover, and sold to the butchers, and their places filled with a new lot. Only first-class registered Shropshire rams are used on these ewes, and the produce is a very good type of mutton lamb. By getting the lambs off the farm during the early summer, we have no losses from stomach worms, so have not this loss to figure on. Going back to the above, my readers will see that our little flock brings us around 125 per cent. per year on the original cost of the ewes, the aged ewes usually bringing when fat, as much, if not more, than they cost when young. As nine-tenths of their feed is what would otherwise be a waste product, we consider our little flock pays us very well for the trouble they give.

Dozens of meadows in our section are fairly yellow each spring from the cress that infests the fields. We have none of this pest, as there is nothing a sheep loves better than this plant when young and tender, and we prefer to handle the cress as a lamb, rather than as hay; as when handled in the form of lamb we do not have the seed to go into the stable manure, and from there back in the land to infest other fields. The ewes do away with millions of rag and other troublesome weeds while the plants are young and tender. Thus when sheep are kept, there is a tendency toward cleaner fields all the time, and less weed killing necessary with the harrow and cultivator. And we have always found the lamb money to come in handy during the early summer. I advise our young farmers to look into the sheep business, as keeping a few breeding ewes is a good habit to get into.

Rockingham Co., Va.

A. L. FRENCH.



INTERIOR VIEW OF CONCRETE MILKING BARN, ACCA FARM.

THE ACCA FARM DAIRY.

The recent opening of the Acca Farm Dairy for public inspection was of more than ordinary interest to both stockmen and dairymen in this section. Messrs. Griffith & Saunders, proprietors of Acca Stock Farm, Richmond, Va., have spared neither time nor money in erecting what has been pronounced by all who have seen it, an ideal dairy barn. It is built entirely of concrete and steel, with the sole exception of the roof and window frames, which are wood. The building is 34x120 feet, with capacity for fifty cows.

In constructing and locating the dairy and buildings, particular attention has been paid to the drainage of the premises. As far as can be judged, the system is pretty nearly perfect in every way. The local and State health authorities were consulted at every stage of proceedings, and every suggestion looking towards the health of the animals and sanitation in handling the milk has been adopted. The idea of the proprietors of the farm is to have absolutely the finest and most up-to-date dairy in the South, and certainly the equal of any to be found elsewhere.

The barns for the dry cattle have capacities for about 100 cows, and the same careful sanitary arrangements have been installed as those at the milking barns.

The separating room and wash room are equipped with modern appliances of the highest standard, so that every vessel, whether glass or tin, can be thoroughly washed and sterilized every time it is used.

An abundant water supply is furnished from a deep well, and is distributed to convenient points all over the place. As a precaution, the water was examined by chemists before use in order to insure its purity.

Another feature not usually found in dairy barns is a system of electric lights. These, of course, eliminate all danger, to say nothing of extra work and objectionable odors which necessarily follow the use of kerosene.

In establishing the dairy herd, the proprietors have

patronized some of the best breeders in the East. They are starting out with about fifty cows, all pure-bred registered Jerseys.

Quite a nice bunch of these cattle were obtained from the Milnwood Dairy herd of Major A. R. Venable, while others were bought at the recent sale at the Lewisiana Stock Farm, and still others from Colonel A. M. Bowman's Bowmont herd. The mention of these three sources of foundation stock is enough to say about the breeding of the cattle.

The service bulls are Eminent of Acca Farm, sired by the Great Eminent, purchased by Colonel Bowman for more than \$10,000. The other bull, Flying Fox's Cash, is the grandson of the Champion Flying Fox, for which

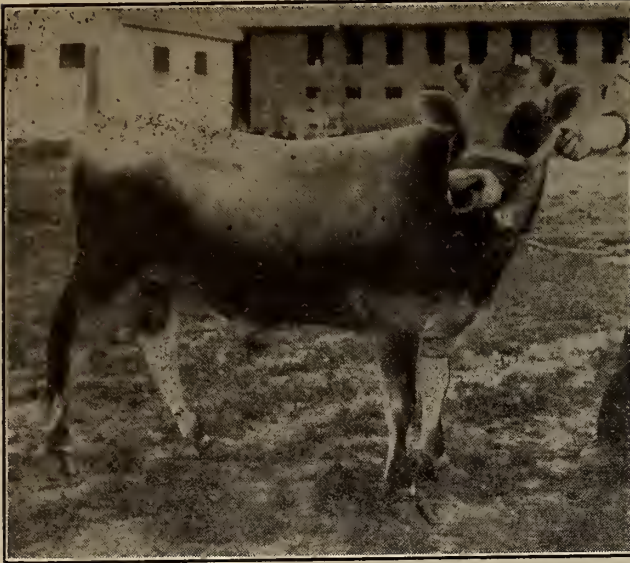


ACCA FARM DAIRY BARN AND 5,000-GALLON SUPPLY TANK.

Thomas W. Lawson paid \$7,500. It will be seen, therefore, that in addition to starting off with good cattle,

the Acca Farm will soon be prepared to furnish stock of fashionable breeding also.

The Acca Farm Dairy is at present sending its milk to the City of Richmond, it being most handily situated to do this. The farm is located at Acca Station, just



EMINENT OF ACCA FARM.

beyond the State Fair grounds, and is, therefore, of easy access, both for business and inspection.

Messrs. Griffith and Saunders have shown a great deal of grit in making such a liberal expenditure in order to get their enterprise started right, and we wish them much success.

SHEPHERD.

SOME BENEFITS WHICH FLOW FROM DAIRY HUSBANDRY.

Editor Southern Planter:

In 1907 the fourteen Southern States produced 1,785,804 tons of cotton-seed meal, and this takes no account of the seed which was produced and either fed or used directly as fertilizer. The available supply of concentrates assumes considerable proportions when we consider that cotton-seed meal has been shown to be much more efficient, pound for pound, in the nourishment of dairy cattle than corn. Statistics furnished by the United States Department of Agriculture also indicate that at least 700,000 tons of cotton-seed meal were exported during 1907, which brings the available supply for home consumption down to 1,085,804 tons. Of this amount a large proportion was sent to the States of the Middle West and East as feed for beef and dairy cattle. What percentage was thus disposed of we have no accurate means of determining, but from suggestions made by the manufacturers and dealers in cotton-seed meal we should judge that from forty to sixty per cent. was used in this way. If this be true, it is probable that not over a half million tons of cotton-seed meal were utilized in the South, and it would be impossible to say what proportion was fed and what part used in the preparation of fertilizers.

It is a well-known fact that the nitrogen in a large

per cent. of the fertilizer now used is furnished by cotton-seed meal; so that the amount annually fed, when compared with the total production, is indeed small. We may well inquire if this condition is due to the dearth of dairy cows or other cattle. Again referring to the Federal reports, we find there were 4,767,000 cows in the fourteen Southern States in 1907, and of other cattle there were in these same States, 15,310,489. The tonnage of cotton-seed meal manufactured, when reduced to pounds amounts to 3,571,608,000. If only 200 pounds of meal were fed per head per annum, there would be enough to provide for 17,858,940 head of cattle. Since we have something over 19,000,000 head of this class of stock alone, it is easy to see that there is a home market for more than twice as much cotton seed meal as we are manufacturing at present time, since 200 pounds per annum would only allow about three-fifths of a pound per head per day. Our 4,776,000 dairy cows if only fed 6 pounds of cotton seed meal per head per day for 150 days, or five months, which would be about the time they would be stabled, would consume the entire output for the year 1907, and would then only consume at the rate of 900 pounds of meal per annum; whereas, as a matter of fact, a good dairy cow would need to be fed some meal probably in the summer, and would consume with profit from 1,000 to 1,500 pounds per annum. It would be an easy matter, therefore, to feed all the cotton seed meal produced to the best possible advantage to the dairy cows we now own, leaving out of the consideration the 15,000,000 head of other cattle which we already possess. It has frequently been said that we have not a sufficient number of live stock to utilize our cotton seed meal advantageously, and it is for this reason that some effort has been made to show the fallacy of this contention.

Let us now consider what the advantages would be from feeding our cotton-seed meal, and so saving a part of the fertilizer bills which now constitute such a heavy tax on the production of our southern farm lands. As a basis on which to make an estimate, let us suppose that the farmer is operating a dairy with thirty working cows. He would have in his herd probably forty animals, as all of his cows would not be milking at one time, and he would desire to develop some of his young stock in order to maintain and at the same time improve his herd by weeding out old or unprofitable animals. Let us consider that he will feed during the summer time or a good portion thereof, as much as 2 to 3 pounds of cotton seed meal, and in the winter from five to six pounds. In this case, cotton seed meal will provide only the concentrate fed, and the amount suggested is for cows weighing 1,000 pounds and yielding a minimum of two gallons of milk per day; some of them will probably give twice as much as this, and all animals will not be fed the amounts mentioned, but the ration will be varied to suit their individual needs. As an average for the herd, however, they will easily consume meal in the amounts suggested above.

On this dairy farm it will be desirable to have twenty acres in corn and sorghum to be put in the silo with an approximate yield of 6 to 8 tons per acre. No doubt many will think this is a small yield, and it is, though some years of experience in weighing the crop made, even when it looks to be large, lead us to believe that the yield of silage is frequently overestimated. There will be fifty acres



FIVE MATRONS OF ACCA FARM DAIRY HERD, GIVING 10 GALLONS PER MILKING.

of corn to cultivate with an approximate yield of twenty-five bushels per acre, or 1,250 bushels all told, and there should be available from this crop about seventy-five tons of stover to be shred, or a ton and a half per acre. Fifty acres of good Bermuda sod will be needed to furnish the summer grazing, and after the corn is harvested the land should be put in oats and vetch for winter grazing and hay production. When the oats and vetch come off, the land could be replanted to corn, but it would be much better practice to grow cowpeas for hay. Or better still, we would divide the area into two parts, growing cowpeas for hay on twenty-five acres, and devoting the balance to the production of grazing crops to be utilized in finishing hogs. On such a farm we think it advisable to raise twenty-five acres of cotton with an anticipated yield of one bale per acre.

This would give approximately 145 acres of land to cultivate each year and would provide an abundance of feed for the herd of cows, the work stock, and for finishing at least 100 hogs each season, as they would be chiefly raised and fattened on grazing crops. There should be twenty-five bales of cotton to sell from such a farm and twenty-five tons of cowpea or oats and vetch hay, since a fair yield would be one ton per acre.

To grow crops like this the land would of necessity have to be fed, and that brings us to the most interesting part of this investigation. To feed cotton seed meal to the cows at the rate suggested, the farmer would probably have to buy twenty-five tons. Suppose it costs him \$24.00 a ton, or \$600.00. He can figure on having eighty per cent. of the fertilizer contained in his cotton seed meal returned to the soil in the form of farm yard manure, provided he takes the pains to have the liquid and solid excreta handled to the best advantage. Moreover, farmyard manure through adding some vegetable matter to the soil and having a beneficial influence on the life and activity of the various micro-organisms essential to crop production, confers benefits on the land which can never be obtained through the use of commercial fertilizers.

Allowing 18 cents per pound for nitrogen, 6 cents for phosphoric acid and 6 cents for potash, figures which we think reasonable in view of the special benefits which farmyard manure exercises, we find that 80 per cent of the fer-

tilizing value of twenty-five tons of cotton seed meal amounts to \$600.00, since each ton of pure cotton seed meal that is containing seven per cent. of nitrogen should contain approximately 140 pounds of nitrogen which at 18 cents would be worth \$25.20, forty pounds of phosphoric acid, which at six cents would be worth \$2.40, and forty pounds of potash which at six cents would be worth \$2.40, making a total of \$30.00 per ton.

On a farm of the area we have suggested and where crops of the yields figured on could be reasonably expected, it would be necessary to spend at least \$600.00 for commercial fertilizers. Suppose the farmer can buy a 3-10-3 fertilizer at \$25.00 per ton. His \$600.00 will buy twenty-four tons of such material. This fertilizer will contain sixty pounds of nitrogen per ton, 200 pounds of phosphoric acid and sixty pounds of potash. This would be enough to apply approximately 330 pounds per acre to the 145 acres under cultivation, and there would be added to the soil 7,680 pounds of available plant food. Eighty per cent. of the fertilizing of cotton seed meal would figure out as follows: About 2900 pounds of nitrogen as against 1440 pounds in the commercial fertilizer; about 1,000 pounds of phosphoric acid as against 4,700 pounds in the commercial fertilizer. This would leave the farmer to buy 3,800 pounds of phosphoric acid and 440 pounds of potash to supply his soil with the equivalent amount of plant food obtained in the twenty-four tons of a high-grade fertilizer.

It will be easily seen that farmyard manure is not a well-balanced plant food, being particularly low in phosphoric acid, but it should not be forgotten that the manure will confer benefits on the land which will offset the apparent discrepancy in the plant food supplied by 24 tons of high-grade fertilizer when compared with the equivalent returned to the soil by feeding twenty-five tons of high-grade cotton seed meal to a herd of dairy cows. However, we would not advise the dairy farmer not to purchase any commercial plant food because a one-sided ration can only prove injurious to his crop and will often reduce the yield disproportionately. As a matter of fact, however, he can purchase the twelve tons of acid phosphate which will be needed to make up the balance of 3,800 pounds due the soil for approximately \$180, and one-eighth ton of muriate of potash will more than supply the loss in potash. So

for the sum of \$200.00 the farmer who feeds twenty-five tons of cotton seed meal may supply to his soil all the available plant food which will result from the use of twenty-four tons of high-grade fertilizer. At the same time he will have enough farmyard manure available to fertilize a good section of his cultivated land each year and enrich it materially by so doing. In fact, he should be able to easily cover one-fifth of his cultivated land with manure each year. Since he would of necessity have to practice a rotation on his land and keep a good part of it covered with crops that not only protect it from wasting in winter time, but help to enrich the soil because of their ability to gather nitrogen from the air, it is easy to see that his land would constantly increase in fertility, and that the necessity for buying the amounts of commercial fertilizer suggested would decrease.

Surely the utilization of cotton seed meal in the nourishment of dairy cattle offers possibilities for the economic upbuilding of our southern farm lands which we cannot afford to longer neglect, and where beef husbandry is practiced, the results would be even more gratifying, as in this case from ninety to ninety-five per cent. of the fertilizing ingredients contained in the food would be voided. The salvation of our southern soils is dependent upon the development of live stock industries which will enable us to take the cotton seed meal we are now producing and manufacture it on the farm, and thereby insure the farmer receiving the highest market price for his crops in a finished form, that is, as beef, milk, butter or cheese.

Georgia State College of Agr.

ANDREW M. SOULE.

BOVINE TUBERCULOSIS.

Editor Southern Planter;

The history of this disease in cattle has shown it to be of a highly contagious character. One animal, having tuberculosis, introduced into a herd may communicate the disease to every animal in the entire herd. A cow in perfect health may contract the disease and for a time nothing will indicate its presence that is, no physical examination would show that the animal had any trouble whatever. This disease at times makes rapid progress and when certain portions of the body may have become infected as for instance the lungs, the animal may succumb to the disease in a short time. The danger in having a tuberculous animal in a herd is not fully appreciated by the average dairyman. If a cow is affected in the lungs she soon becomes a source of danger to the entire herd. The lungs are soon affected to such an extent that the diseased portions break down and the material from the lungs is coughed up and swallowed, the tubercle bacilli in this way entering the digestive tract and being constantly thrown out in the manure. The manure in the stable thus becoming a very prolific source of infection. In stables this manure becomes more or less dried out and being composed of light material a great deal of it rises and floats in the air as dust and in this way is taken into the lungs and digestive tracts of the other cows in the barn as well as getting into the milk in the process of taking the milk from the cows, the danger then of the transmission of the disease can readily be seen where only a single animal in a herd may be affected. It is not surprising that in many cases where no precautions are taken that entire

herds become diseased, which entails more or less loss upon the owners.

The question then is a most important one for the intelligent dairyman to solve. What can he do to protect himself from this highly contagious disease. He must do something or else disease may get into and spread through his entire herd.

In the first place he should take every precaution not to bring tuberculosis into his herd by buying animals which may be affected with the disease. The question presents itself, how can this be done.

No dairyman should introduce into his herd any animal without first satisfying himself that such animal is free from tuberculosis. The tuberculin test will show whether an animal is diseased or not. The application of this test is simple, but it should not be made, except by an experienced veterinarian, as it is very important that the results of this test be intelligently diagnosed. Every cow, then, before entering a herd should first be tested to find out if she is free from this disease. This should give the assurance that the disease will not be introduced into the herd.

The State Live Stock Sanitary Board has taken the precaution to pass a regulation that no cows for dairy or breeding purposes be brought into the State without the assurance that they are free from tuberculosis, and they must be accompanied with papers showing that within six months before they are brought into the State that they have been tested with tuberculin without reacting. The railroads will be notified of this regulation, and that they will be bringing cows into the State in violation of this regulation, unless accompanied with the proper papers. This should discourage the attempt to bring tuberculous cows into the State, as a heavy fine is made the penalty of the violation of this regulation.

The next question is, how to free a herd from tuberculosis, when its presence may have been indicated by the use of the tuberculin test. The reacting animals should be promptly removed from the herd. These animals may not be affected to any great extent, and when the infection is in its first stages the carcass, for the most part, is passed for food purposes. When tuberculous animals have been found in a herd the possibility of more or less infection about the stable is a matter to be dealt with, as it is very important, not only to free the herd from tuberculous animals, but also to remove the possibility of the transmission of the disease in any way whatever to those animals not reacting to the test. The entire premises should be disinfected, and the treatment should be as thorough as it is possible to make it, and as a double precaution, should be repeated before the animals are put into the stable again. One testing of a herd with thorough disinfection may get rid of tuberculosis, but to be sure that it has been gotten rid of, periodical tests should be made, and after making the first test and removing the reacting animals and thorough disinfection of the stables tests should be made six months thereafter, and followed with removal of reacting animals if any, and disinfection as at first.

After it has become apparent that all tuberculous animals have been gotten rid of, and all danger of tuberculosis removed from the surroundings, then the herd

can be kept free from this disease, unless, in some way, the disease be introduced into the herd by bringing in a cow or bull that may be infected with it.

After the herd has been freed from this disease, and has failed to react after two or three tuberculin tests, made at intervals of six months, then, in order to know the herd is kept free from this disease, tests should be made regularly at intervals of one year. The difficulty presented to the dairyman is that he is afraid if he tests that he will find a large majority of his herd affected, and he is afraid to take the plunge, figuring that unless this examination is general, that no particular good will be accomplished by testing his cows.

In some of the States testing cows with tuberculin is made compulsory, and the State in which this is done pays a certain proportion of the value of all animals condemned, and takes over the carcass, selling the hide and the carcass also, if it appears after examination, to be fit for food. Such disinfection as may appear necessary is also done, so as to remove this source of the possible transmission of this disease. This fight for the eradication of bovine tuberculosis is coming; the disease has been practically eradicated in the way outlined above, in some countries, and in some of our States it is being eradicated by the same measure.

Our dairymen should study this question very carefully, as their future success in this business depends largely upon the question as to whether they will be able to successfully contend with this much dreaded disease.

W. D. SAUNDERS,
Dairy Commissioner.

Richmond, Va.

THE DUAL PURPOSE COW.

Editor Southern Planter:

In the June Planter, Mr. Luttrell enters a plea for the dual purpose cow, naming the Red Poll and Shorthorn, and uses some novel arguments in support of his position which are sound doctrine from the breeder's standpoint, but serve, it would seem, to weaken his position. His argument is clearly for purity of blood. He says: "We may select a sire of exceptional conformation, but which does not possess generations of uncontaminated blood to impress upon his progeny, and find that his excellence ends with himself. * * * On the other hand, the pure bred, with generations of royal blood of strong individuality with conformation characteristic of the breed, is bound to impress his good points on his progeny." This is good doctrine. Then to strengthen his dual purpose argument he cites the cross of the thoroughbred and the Clyde as a means of producing a dual purpose horse. It may be, undoubtedly is, true, that there are isolated cases where such a cross has produced a valuable animal. It would be interesting, however, to know the name of the successful breeder who follows this line of breeding for the purpose of producing a race horse, a draughter and an ideal saddler all in one individual. And, if by chance, such a valuable animal has been produced, what characteristics were transmitted to its progeny? Would it be called a thoroughbred, a Clyde or a scrub?

The judgment of condemnation which Mr. Luttrell passes on some men of a belief different from his, may

establish the law by which he himself shall be judged. May it not be true that he is included in the class of "men of narrow vision, who claim to know so much about something they have never handled, or, if they have, it has only been a cheap cull"? Just what experience have you had, Mr. Luttrell, with the cow bred solely for milk production? Have you ever made any comparative tests of net returns from the cows you champion and those you condemn?

Further arguing his point, Mr. Luttrell says: "The most valuable men on our farms are the ones who can perform well the greater number of duties, and not the one-duty man." The dual purpose man! This is unique! But to consider it a moment. Then, the man with many trades or professions is a dual purpose man. If his claim be true the "Jack-of-all-trades" is to be valued more highly than the man of a single trade or profession. The man who is trained to a degree as a physician, a lawyer, an engineer and a dentist is more to be commended than a man eminent in a single profession. Is your physician also your lawyer and your dentist? Is it not a notable fact that men who have attained real greatness have devoted their entire talent and energy to a single line of research?

And the yearling steers. How many yearling steers, except possibly pure breds, ever bring a price of \$50 or more? What proportion of the yearling steers, even of the distinct beef breeds, throughout the country, bring any such price? If Mr. Luttrell means pure breds, the answer is this: The pure breds of the strict dairy breeds seldom sell for a price as low as that, while it can be very easily shown that the average price received for pure breds of that type is quite as much as that received for the pure breds of the so-called dual purpose breeds. So there is no virtue in an argument that the young things bring a better price.

And how about "the noble cows giving a gallon of milk from each quarter with grand calves by their sides?" After taking us back four decades to see those cows, will Mr. Luttrell kindly tell us where we may go in this present year to see the progeny of those cows? What became of those grand calves, are they giving four gallons of milk at a milking? It may be accepted as a fact that such cows may have existed, but unless those calves are duplicating the records of their ancestors, and are producing more of the kind, the illustration is the best argument against the thing that he is trying to prove. In that case they were simply occasional individuals, high producers themselves, but lacking the power to transmit their milking quality to their progeny, simply because they were bred as beef-producing animals. If Mr. Luttrell's position is tenable, and if he and his co-advocates of dual purpose cows are men of broad vision as distinguished from the advocates of the special purpose cow—the men whom he characterizes as men of narrow vision—then it would seem that they must surely be able and willing to produce concrete evidence in support of their contention. If within the breeds which you call dual purpose, such exceptional producers are to be found, and are so prepotent as to transmit that quality to their progeny according to known laws of heredity, and have done so, and a strain has been developed from which animals can be selected which are at

once the best beef and the best milk producers, will you not, Mr. Luttrell, name the man or men who have bred and who own such animals; name the animals themselves, and give authenticated records of their milk production, to the end that erring dairymen may be recalled from their wanderings?

Very many times the position of the special purpose advocate is misunderstood or misconstrued. No one questions that there are occasional large producers of milk among the beef breeds of cattle. No one questions that Mr. Luttrell or anyone else may have known Shorthorn cows which gave four gallons of milk at a milking. But that any considerable number of such cows, or any large herds of them exist is seriously questioned. Certainly neither Mr. Luttrell nor anyone else can show an officially authenticated record of the production of any such herd, in any part of this country. Nor is it probable that any considerable number of the breeders of the Shorthorns or Red Polls claim their cows to be great milk producers.

Mr. Luttrell's suggestion of a wager can be disposed of in a single query: Would he be willing to place the wager if it were to provide for the test of not less than one hundred cows?

O. A. THOMAS.

Fauquier Co., Va.

TOBACCO FOR SHEEP.

Editor Southern Planter:

Through these columns I have spoken often to the sheep men of Virginia and the South about the stomach worm and some of my friends have known that I have spoken out of "an abundance of experience." Quite recently I had something to say of tobacco as a preventative. Please remember that I was not of that number who have so often spoken of it as a cure, but, on the other hand, I had evidence that went to show that lambs affected with stomach worms, after having taken tobacco regularly for a period of two months, still showed a goodly number of stomach worms on post-mortem examination. I could not state positively, therefore, that tobacco will expel stomach worms completely, but, in the case cited, the lambs picked up flesh and improved in appearance. If this is the way of stomach worm lambs, I had not learned it up to date. I felt encouraged to pursue the treatment further and have a rather interesting report to make, which seems quite apropos, now that so many breeders are writing about the futility of this treatment and some even giving testimony to its injurious effect upon their flocks.

Let it be remembered that my Dorset flock is a part of the well-known Edgewood flock, which it was my pleasure to build up after many years of work and through difficulties unnumbered and trials that would have driven many a less enthusiastic sheep breeder to despair and a closing of the business. Stomach worms and all other sort of worms had invaded our sheep and our losses were fearful, and what sheep we had were reduced in size and much depleted. After reducing the flock, the remnant was slowly brought back to respectability and health by a system of pasture that I have so often described and which is quite simple to work with a small

flock; but two things always troubled me and made me believe that my work with parasites was not complete; viz., the presence of much mucus (white lumps and threads) and segments of tape-worms in the droppings, and a tendency to cough after the least exertion or excitement. If you would send a dog for a bunch of ewes, they would come up coughing and snorting in a way that mere catarrh could not be responsible for.

Furthermore, I find that most of the flocks in this section show the same characteristics. My own flock was very seriously affected all last summer, a few of my best ewes being so inconvenienced that they just would not take on fat on grass. I can't believe a flock in this shape is in satisfactory condition, even if you are keeping the work of stomach worms and other parasites in safe limits. I am, therefore, the more ready to report the condition of my sheep.

I was in Georgia during the winter and tobacco feeding stopped when I left in September, but I gave orders that in February salted tobacco stems should be placed before my sheep regularly, but that the sheep should be salted besides. Within a month all of them, old sheep and lambs, were eating tobacco stems greedily. In fact, they had gotten the filthy habit, the grip of which many a man can, to his sorrow or to his sincere satisfaction, bear testimony to. In fact, they ate so much tobacco that in May I took the stems out of their trough and now feed them a limited quantity twice a week. You ought to see them chew that tobacco; but I am glad to report that they don't spit tobacco juice all over the walls of their stable, only men are thus careless in the use of tobacco, and, thank the Lord, not many of them, even though they must chew.

These sheep "sure do love" tobacco. The part that pleases me is their condition. I think I never saw sheep in finer condition. Their skins are as pink as cherries, just as Dorsets skin can be, and even the ewes with lambs are in fine flesh. The lambs, instead of showing any harsh wool or paleness of skin, are plump, smooth, lusty, pink. My, it is delightful to see such sheep! I find no coughing to speak of and their droppings are clean and nice. I am almost ready to say that tobacco is a great tonic for sheep and certainly I shall continue its use as long as I find these results.

I trust Virginia farmers will give it a thorough trial before giving it up and report results. We don't want men who are too stingy to buy a little tobacco or too lazy to teach their sheep to eat it to write great epistles declaring it is no good. Let's try it in the right way for two or three years, and if we find it good for the health of our sheep, we will tell the world about it and Virginia will have a more laudable demand for an industry that is already bringing her great wealth.

Maxwelton, W. Va.

H. B. ARBUCKLE.

OPPORTUNITIES FOR DAIRYING IN VIRGINIA.

Editor Southern Planter:

This subject will be considered under two headings—one, the available market for dairy products, and the other, the available market for dairy animals. The production of first-class dairy products in Virginia is very limited. There is very little butter and cheese produced

and not enough sweet cream to supply the demand for this product; at times milk is also to a limited extent sent into the State. If the production of milk and cream was doubled and a good article offered at a fair price, it would all be used promptly. Butter is produced on the farms to quite a considerable extent, but, on account of the fact that it is not uniform in quality, it does not bring the price it should. A report recently sent out from the Dairy Department at Washington indicates that about 20,000,000 pounds of butter is made in Virginia, the larger portion of it on the farms. There is easily a difference of ten cents a pound between the price of country-made and creamery-made butter; there is then lost to the producers in Virginia on this amount of output \$2,000,000, this could be saved by making this product of high quality, when it would easily bring the advanced price. This could be done by the farmers associating themselves together and having creameries in which to prepare their daily products for market. The butter production in the South is very limited; the report already referred to also states that there are fifty cities in the South buying nearly half a million dollars each of dairy products yearly, and that the major part of these products are brought into the States in which these cities are located from other States.

Virginia has climatic conditions superior to what we find in States in higher latitudes; winters are shorter and milder, and ice seldom fails to be formed and an abundance of ice can be gathered every winter with few exceptions. It is not necessary to build such expensive barns, as the cold weather in winter is not so severe as in higher latitudes, nor so prolonged. On account of milder winters and longer summers, cattle can be kept at less cost, the feeding period is not so long, and, in some localities where grass grows very luxuriantly, as is the case in some portions of the Valley and the Southwest, cattle can be wintered at small cost.

Cheese is consumed very largely in the State; almost every store where groceries are sold has cheese for sale, while the production of cheese in the State is very limited, scarcely any cheese is made at all.

When we consider the opportunities for selling dairy animals in Virginia we find that the demand is far beyond what can be supplied for many years. The dairyman who will breed cows for dairy purposes as soon as he can produce cows giving from four to six thousand pounds of milk per year and two to three hundred pounds of butter fat, will have no difficulty whatever in finding sale for them at satisfactory prices. The demand for dairy products in Virginia and the South means that in Virginia at least dairying will be developed rapidly, and with this development will come an increased demand for dairy cows and better prices for better cows. The production of good cows is a simple matter, even when the dairyman has to start with native cows. If a good bull is used, it takes only five crosses to eliminate all but one-thirty-second part of the blood of the original cows, and with thirty-one-thirty-seconds of the blood of bulls whose ancestors have produced from three to four hundred pounds of butter fat and from seven to ten thousand pounds of milk, there would be no question as to the fact that these cows would be large producers.

Virginia offers peculiar advantages to the dairyman and those who may wish to go into this business and those who are looking for the best opportunities should thoroughly investigate what Virginia has to offer them before locating elsewhere. It might be well in this connection to say that those who may be looking for instruction in this line of agriculture endeavor can find at the State Agricultural College at Blacksburg opportunities equal to almost any in the country. Communications for information along this line addressed to the President, at Blacksburg, Virginia, will bring full information of what the College is prepared to do in this Department.

Richmond, Va.

W. D. SAUNDERS,
Dairy Commissioner.

SUMMERING HOGS AND PIGS.

Editor Southern Planter;

Our people certainly do not realize the profit to be made in the pork producing business in the South, else there would be more men engaged in the business. We find no class of animals pay us a greater net profit than the pigs we sell each fall and winter. There is a first-class market in the vicinity of nearly all our cotton mill towns for good, fresh pork, and what, my friends, is the sense of letting the Western farmers, through the packer, supply this market when we can grow the meat at one-half what it costs the Western farmer to produce it, and get the price the Western man secures for his product with the packer's profit and the freight added.

Some people seem to think because we have not a strictly corn growing section as yet that we are not in position to grow pork profitably. A greater mistake was never made. Three fourths of the feed of our hogs comes from other than corn plants. What an array of pork producing plants we have. There is blue grass, Bermuda, timothy, herds grass, crimson clover, rye, oats, vetch, white clover, cowpeas, soja beans, and corn. All these we may have on any of our Piedmont farms if we will. On our place we have an abundance of all except the Bermuda and vetch, and could have these if we thought we needed them. We are running seventy shoats on one little place at this time at a cost for purchased food (ship-stuff) of forty cents per day. The pigs weigh from twenty-five to sixty pounds each. The balance of their food is picked on the farm and the majority of it is products that would otherwise be wasted—white clover, plantain, Japan clover, etc. We let them right out into our large clover fields and pastures. They do no damage to the hay when they have a large territory to run over, and the feed they secure in this way at practically no cost keeps them growing right along. Later, when the field of cowpeas is beginning to show pods they will bury themselves in the vines and their purchased food will be practically nothing. When the corn gets in the wasting ear stage we will start them off on a small feed of snapped ears. These will be taken from the ensilage field. Then, when the main crop is ready to husk, they will be getting all the soft and short corn they will use fed on a late pea field. When the peas are all gone an early sown field of crimson clover and oats will be ready for them. Butchering will have begun before this time, the older hogs being killed as the fresh meat trade

calls for them. Succulence will be continued for the later killers, the small pigs and sows, by the use of good, rich corn silage. The last of the spring pigs will be gone by February, then the early fall pigs will help out until warm weather arrives, when the fresh meat trade will stop until fall. By October another lot will be ready and we will try to make soja bean meal take the place of the purchased shipstuff hereafter, as we believe in growing all the feed we use when possible to do so. We have been growing hogs in the above manner on our Piedmont farm for eight years, producing from forty to one hundred and fifty head per year, and having lost only two hogs by disease during that time, we conclude that such a life suits the hog nature. We spray the pigs every two weeks with cattle dip, one to forty, with some coal oil added to the mixture. Calling the whole bunch into box stalls, the spraying may be done in ten minutes at very little expense. Our pigs are fed their slop in large, flat-bottomed troughs behind a creep where the sows cannot interfere with them. The slop being distributed evenly in the wide troughs, the pigs are obliged to take their feed slowly and all have an equal show.

We castrate the boar pigs at about three weeks of age. Have a good, sharp knife, and a bucket of dip to immerse the wounds in and no attention need be paid to the "sign," whether it be in the heart, the toe, or the end of the tail. We have castrated more than one thousand pigs, using the above disinfectant method, have yet to lose the first one, and seldom have one to be off his feed for an hour, so we have lost faith in the "sign." The "sign" will be wrong when pigs are kept in filthy yards or pens; when fed on corn alone in a dry lot, or when the operator uses a germ-infected knife, and the only sign we can be sure of in the above cases is that the hogs are being kept under unsanitary, unprofitable conditions, and that the hog grower should change his methods or get out of the hog business.

A. L. FRENCH.

Rockingham Co., N. C.

BACON AND LARD HOGS.

I would like to say to "S. G. S." that I had no idea in what I said about the Florida razor-back hogs to throw any discredit on a breed that has been produced for bacon. I simply cited the razor-back as the survival of the fittest for the conditions under which he lives, and I know that even a Florida razor-back and his kin in Southeast Virginia make the finest of hams and the most gamey bacon in the world. I have never raised the Tamworth, but, from all I have heard of them, I would greatly prefer them for home use at least to the great lard hogs of the West. The hams of Smithfield could not be made from the Berkshire or Poland China, while probably the Virginia packers would find it profitable to raise the Tamworth as an improvement on the razor-backs. I would be glad to see more attention to the raising of the best type of bacon hogs, and, from what I have seen, I believe that "S. G. S." is right about the Tamworth breed, and I never wrote a word against them. The West, to use profitably its corn crop, will probably always stick to the lard hog, while the general adoption of this type in lower Virginia would destroy the reputation of that section for fine hams, and there the use of a full-blood Tamworth

male would probably be an improvement on the native stock. But the individual farmer must study his own conditions, and if he can make more money out of the early maturing hogs that are popular in the West, he should do so, and leave the bacon hog to those whose conditions favor his development.

W. F. MASSEY.

BREEDS OF HOGS AS MEAT PRODUCERS.

Editor Southern Planter:

In your May issue is an inquiry from Mr. George A. Greene as to the capacity of the various breeds of swine to convert food into meat.

When searching through some newspaper cuttings of the year 1902, I found the following:

Breeds Compared as Bacon Producers.

The large white (Yorkshire) pigs which are so popular among breeders in this country have recently been figuring to great advantage as pork producer in some experiments carried out at one of the American Agricultural Stations with the object of testing the relative values of a number of leading breeds of swine. As a result of these experiments, it was found that the average cost of producing one hundred pounds of pork worked out as follows for the various breeds experimented with in the trial:

1. Large Yorkshires.....8s. 7d.= \$2 03
2. Tamworths9s. = \$2 08
3. Tamworth-Poland China Cross...9s. 2d.= \$2 10
4. Yorkshire-Poland China Cross...9s. 2d.= \$2 11
5. Yorkshire-Berkshire Cross.....9s. 5d.= \$2 13
6. Poland Chinas.....10s. 5d.= \$2 25

The following conclusions were deduced from the experiments in question:

- 1 That the gains made by well-fed swine increased with advancing age for several months subsequent to birth period.
2. That swine of the lard producing types are not more cheaply grown up to the age of one hundred and ninety-six days than swine of the bacon producing types.
3. That pork can be made more cheaply from swine of the large Yorkshire and Tamworth breeds than from the Poland Chinas, or what may be termed "lard types."

I have somewhere amongst my papers the details of experiments in which Berkshires also figured in these. The large Yorkshire also came out top in even weight and quality of meat produced from given weights of food.

Hunts, England.

SANDERS SPENCER.

THE MILK ESCUTCHEON.

Editor Southern Planter:

Somewhere in the forties there was what was called the "Guenon Milk Mirror," a series of photos showing various arrangements of the hairs on a cow's rear; curls, "wheatears," etc., by which her milking qualities were determined as to quality, quantity, and period of giving milk.

I am certain beyond all possibility of doubt that there was such a series of charts, and that I have seen statements in veterinary journals in answer to enquirers that the charts were deemed reliable, and also that I once saw—I think, in the old American Agriculturist—mention of the fine "escutcheon" some bull showed, as indicating his value as a getter of milkers. I also remember of a

person who had mastered this "mirror" passing behind a lot of cows belonging to a member of my family, and accurately giving their relative milking qualities.

Originally, the "Mirror" was defective in its intense elaboration. Cows were divided into families (I remember that one was called the "Flanders," or "Flandreau," or some such name). These families were divided and subdivided until one might almost as well attempt to commit Webster's dictionary to memory as to master it. But my old neighbor, who indicated the quality of cows as above stated, said that the Agricultural Bureau (or whatever it was forty years ago) had simplified the thing and made it comprehensible.

But perhaps that was in the days of the Commissioner of Agriculture who seriously inquired why hydraulic rams had not been tried to improve the breed of sheep?

Can you tell me where I can find a print of these "Mirrors"?

WILLIAM WADE.

Oakmont, Pa., May 18, 1909.

You are perfectly correct in your recollection as to Escutcheon plates. We remember having seen them ourselves, but cannot now recall where. We have looked through several old books on Dairy Cows, but cannot find illustrations of these escutcheons, though we still think we have them in some or one of the books in our library. However, except as an example of the strange ideas formerly entertained even by some scientific men as to the possibility of determining the milking and producing capacity of cows by outward signs, they are valueless. Modern research and scientific investigation has positively determined that no reliance whatever can be placed in the peculiar arrangement of the hair on the escutcheon of the cow as to her capacity to produce milk or butter. Cows with so-called fine escutcheons have been proven to be of no value as producers. Dairy conformation and selected breeding in producing lines are the only means of securing profitable cows when properly fed. Some of the finest producing cows ever known have little or no signs of an escutcheon, and all the best authorities on the dairy cow wholly disregard this "old time sign" of a good cow. We ourselves can remember the time when we were told to have regard to the escutcheon when buying a dairy cow, but never were able to see any relation between the escutcheon and the production of the cow, and hence we soon ceased to place any reliance on this so-called "sign."—Ed.

PLOWS AND PLOWING.

Editor Southern Planter;

I would like to say a few words on the plow question. As we all know, it depends largely on what we want a plow to do as to what kind of a plow we should buy; but, in the first place, we should not expect too much of any plow or of any one implement.

Since I have learned how to use good modern plows and implements I can do it with much profit. I mean by this that previously I have often put the tool in the wrong place.

I notice that our Tennessee friend has trouble with the disc plow, but it is just because he has the wrong plow.

The Chattanooga reversible disc will do any work that could be required of any plow; on level land it does better

work than on the hillside, because it doesn't turn so flat.

I am a small farmer and keep only four horses, yet I have three two-horse plows.

Where there are stumps and rocks, the disc will not work, but where the reversible disc will not work the Oliver will, and do it right.

I plow twelve inches deep with either, and do it with two horses. I certainly make better work where I use the disc, and it is the only plow that will turn under pea vines out of sight without a chain.

There is another feature about the Chattanooga that interests the farmers, or at least it should, for with it any one can plow land too hard for any other plow, and it pulverizes the land as one would want it.

Pittsylvania Co., Va.

CONSTANT READER.

THE VIRGINIA STATE HORTICULTURAL SOCIETY.

Editor Southern Planter:

The Executive Committee of this Society meets tomorrow (June 22d), when the subject of exhibits of fruit to be made by the Society this fall will be discussed. I hope to be able to give you full particulars of these arrangements for publication in your August number. In many parts of the State our fruit crop is quite short, especially peaches. I see the Government crop report for June estimates the apple crop of Virginia at 47 per cent. as against 68 per cent. at this time last year, and peaches at 25 per cent. as against 60 per cent. last year. I fear that recent hail storms in several parts of the commercial fruit sections this month will reduce the above quoted percentage in next month's report. A most valuable little book, written by Professor H. L. Price, of Blacksburg, our State Horticulturist, entitled "Fighting the Insect Pests and Diseases of Orchard, Field and Garden Crops," has been issued by the Virginia Agricultural Experiment Station and can be obtained by any one interested in such matters on application to that institution. This book is one of the most valuable aids to the farmer that has yet been issued. I hope to have more matter of interest to send you for your August issue.

WALTER WHATELY, Secy. & Treas.



Case Road Roller Climbing Ninth Street Hill En Route to a Public Demonstration on the Boulevard, Richmond Va. Hoenniger & Sizemore, Agents.

The Poultry Yard.

POULTRY NOTES.

Four weeks of rain with very little sunshine has been the leading topic of conversation. Planting has been delayed; cultivation retarded, and haying operations hindered and much hay ruined. Young chicks have died by thousands. Frequent heavy rains have soaked the earth and caused the runs, coops, houses and brooders to be damp and wet. Chicks have been wet, gotten chilled, bowel trouble set in and thousands have perished. What is the remedy? One can manage a few chicks very well, but when it comes to hundreds or thousands it cannot be done without plenty of good, dry house room. I have depended on small coops and brooders this season and have lost many chicks. I knew better, but, like many others, trusted to "luck." This will not do. Located in a growing suburb of the city of Richmond, I deem it unwise to erect permanent poultry buildings. Brooders are all right in fair weather, but with weeks of rain it is impossible to keep the chicks dry and warm without suitable house room. Much is said and written about colony houses and the colony house plan, but for chicks up to three weeks old I know that the only way that I can raise them with the minimum of loss is to have them in a good brooder house that can be kept warm and dry by artificial heat. After they are four to six weeks old the colony plan is advisable in many instances. Aside from the extra cost for labor and material and the inconvenience of feeding and care of a large flock kept on the colony plan, I believe it to be preferable to large houses and flocks. Before another hatching season I will provide a roomy incubator cellar and a large pipe heated brooder house. I am firmly convinced that it is just as necessary to have such a house here in this mild but damp climate as in the colder North and West. My intention is to build a house one hundred feet long by ten feet wide and six feet high in the clear at the lower part. This will be divided the long way by a concrete wall eighteen inches high, three feet from the rear or north wall and the space between this wall and the front wall of equal height filled up with sand and gravel. A coil of four pipes the entire length of the house will be laid along this inside wall three to four inches from the gravel and sand floor with asbestos covered front and top and the south side left open for the chicks to run under at will. This cover will be about twenty inches wide, the full length of the pipes. This will give a space seven feet wide by the length of the house for brooder room and runs and will be divided by movable wire partitions into runs two feet wide. Outside of this house on the south side runs will be constructed two feet wide and ten or twelve feet long connected by small doors with the inside runs. This outside run will be made by using movable panels so it can be cultivated and seeded to clover, oats, rye or any quick growing crop to furnish green feed for the little chicks. By building such a house and boarding it tight with plaster board under the weather boarding and a good muslin front three feet wide the full length of the house, it can be kept warm and dry at very small expense. I

intend to use a large jacket heater that will burn either hard or soft coal with expansion tank heat regulator. I estimate the cost of such a brooder house and equipment at \$1.50 per lineal foot for material. All the work can be done during the leisure months of fall and early winter. This house with outside runs for fair days will accommodate 25 chicks per lineal foot or 2,500 in the 100 feet. I know from experience that this long, open, ground floor, water-heated brooding system will raise every chick that is hatched right. There are no lamp fumes, no lack of ventilation and no danger of over-heating. During cold rainy weather the smaller chicks can be kept in the enclosed runs and a moderate fire will keep the entire house comfortable and dry.

There has been considerable discussion pro and con during the past few months in the agricultural and poultry press relative to the comparative vigor and hence usefulness of incubator hatched and brooder raised vs. hen hatched and raised chicks. This question like very many others will never be settled for all the people. It depends on the man or woman operating the plant. I can hatch and raise more good chicks from 1,000 good eggs by artificial methods than I can with hens. Many men and women can do better with hens. As to the vigor of the stock I can only say that I have been raising Leghorns artificially many years and they are larger, stronger, and better layers now than they were twenty-five years ago, before artificial methods were in use. Men and methods differ. Some men succeed where others fail. Some very brainy men will take a model farm and run it at a loss of \$12,000 per year, while other men not so brainy but watchful of every detail would manage such a farm to show a very substantial profit. Some men will learn from practical experience or practical men. Others have such abnormal cranial development that it is impossible for them to believe that practical knowledge gained by long years of experience has any value. An educated brain without a trained hand has made a fool of many a young man.

Chicks can be hatched in incubators so they are utterly worthless. If the temperature is kept too high or too low during the hatch or if the ventilation is bad the chicks will be small and weak and will be diseased before they come out of the shells. If the chicks are hatched right, brooded right and fed right they will be as large and vigorous as chicks can be. Some of the best laying strains of Leghorns and hence the most vigorous have been hatched and raised by artificial methods for many generations. Wrong feeding, close confinement and improper mating have done vastly more to injure the vigor and vitality of our poultry than the method of hatching or brooding.

Much is said and written about and against in and inbreeding. I believe that judicious inbreeding can be followed with decided advantage. One must be sure that the foundation stock is healthy and vigorous, then select the strongest and most desirable individuals and do not use them in the breeding pens until fully mature. Never breed young, immature birds under any consideration. Do not allow the male to run with the flock all the time.

Some people argue that fowls and birds in the forests and wilds of nature are in flocks and pairs during the entire time and year, hence they argue that it is natural or nature's way. This is right in the theory, but all wild fowls and birds have their pro-creative period and do not mate at any other season. With our domestic fowls we change this period by selection, feed and environment to continue during ten months of the year. If breeders generally would separate the sexes at the close of the hatching season, say June 1st, and keep them apart until January or February and feed the males extra during the breeding season great improvement would follow both in the percentage of fertility and vigor of offspring. Some years ago I experimented with a small pen of white-faced Black Spanish hens. I put six hens, two years old into a yard on the first day of December. They had a good coop six by eight feet square. They were fed whole grain mixture consisting of wheat, corn, oats and buckwheat. They laid well all winter. March first I mated them with a strong yearling (coming two in June) cock bird. I arranged a large roomy coop in the small house and kept the male confined in this coop three days out of every four. He was fed wheat, soaked oats, dry bran, some corn and every fourth day a small handful of green cut bone. March 10th I began to set eggs from this pen under Light Brahma hens. I set 250 of these eggs under sixteen hens. One of the hens with 17 eggs died on the nest and 7 eggs were broken in other nests leaving 224 eggs. Of this number only three proved to be infertile and only two of the fertile eggs failed to hatch. Two hundred and nineteen chicks hatched and lived to broiler size and many of the pullets were laying at five months old. Next year I intend to repeat this experiment with a pen of ten White Leghorns. I will use a two-year-old cock and yearling hens and allow the male with them one day in four. These eggs will be hatched in small incubators, holding 100 eggs with two-inch warm air tube open all the time and a copper tank holding sixteen quarts of water to warm the egg chamber.

I believe that I can inbreed Leghorns in this way, hatch them in incubators and raise them in the open house brooder and improve them in size, vigor and egg-yield for generations to come. If I live long enough I will know.

HUSSELMAN.

INCUBATOR EXPERIENCE.

Editor Southern Planter:

I have read with interest the letters in the Journal concerning incubators and brooders; and deeply regret that the men who have had such hard luck (as one chick from 130 fertile eggs) insist on publishing it. I believe that such letters keep a good many prospective poultry men out of the business, who would make a success were they to enter it.

Experience has proven that when chickens are raised on a medium or large scale, that it is far cheaper to rear them artificially than to do so by Mother Nature's way. My experience with incubators and brooders has been very limited—as I never saw the inside of one until about two months ago, but then bought a second-hand machine that was said to be in "fair condition." From the first setting of 150 eggs I got 92 chicks. My eggs were not of the best fertility as there were only 114 of them fertile; nevertheless that is an 89 per cent. hatch.

On account of other business I did not start another hatch for nearly a week; on testing this lot there were 119 fertile ones; from which I hatched 102 chicks; all strong and healthy. This second lot is to-day two weeks old; and I have lost but five of them (one mashed by stepping on) and I do not believe that the loss would have been this heavy, but for the cold, wet, penetrating weather for the first three days in the brooder.

I gave the incubator a good deal of attention with the first hatch; but with the second, and also with the one that is now on, I only took about ten minutes each morning to fill and thoroughly clean the lamp and turn the eggs. Of course I followed directions as nearly as I could in the length of time in cooling the eggs; I have just tested this last lot, and find 122 eggs to be fertile. I am not counting chickens before they hatch, but ought to do better this time than before; which is a little better than the hens have been doing for me.

I have not been "monkeying with them" very long, but think I can do better when I have; and know that the chicks are easier to care for in a brooder and run than when with hens.

Hanover Co.

V. NELSON VAUGHAN.

INCUBATOR VS. HENS.

Editor Southern Planter:

Seeing so much talk about hatching chicks with hens has tempted me to write you my experience. I have been hatching chicks by both methods for years, and find the natural method by far the best. This year I used hens entirely, they hatched practically every fertile egg and I raised nearly ninety-five per cent. of the chicks, and they are exceptionally vigorous. Have had no trouble with white diarrhoea as all who use brooders have.

I do not find the sitting hen much trouble. I put twelve or fifteen in the loft, and keep plenty of water and food before them all the time, also a dust bath. They require about one minute's attention a day. If we will give the hen with chicks a good house with a dry floor and plenty of light we will find her very little trouble. It is a big satisfaction to raise nearly all chicks hatched and to have them grow off rapidly and make profitable layers. When I used incubators and brooders I always had trouble with smoky lamps and bowel trouble and colds. I have had none of this trouble this year.

I have no trouble getting early sitters. My Rhode Island Reds are fine winter layers and early sitters, and they make the best of mothers and often start laying when the chicks are only four or five weeks old. I believe that the natural means of incubation and brooding will produce better colored chicks than the artificial means, I mean among Rhode Island Reds or any buff breed.

I believe the natural method to be practical on a large scale, and see no reason why a given flock cannot be reproduced during the months of March and April, provided you have winter layers which make early sitters. This spring from a flock of 150 hatched 250 chicks between February 15th and April 15th. These early chicks are healthy and mature without any setbacks. Some were hatched before the big snow storm, and water froze in their houses every night, but it had no bad effect on them at all, in fact they were the best I hatched.

Henrico Co.

W. D. SYDNOR.

The Horse.

NOTES. (By W. J. Carter.)

"Broad Rock."

In the matter of ability to win races season after season and train on to an age that of itself usually brings about retirement, some of our Virginia horses present quite a strong contrast to those bred in many other States, of which conspicuous examples are furnished in the steeplechasers, Gould, Grandpa, Charawind, Jimmy Lane, and others. Gould was bred in the Ellerslie stud, as was Charawind, a big and beautiful gelding by Charaxus, from Helmwind, by Eolus, who raced and won over the jumps until eleven years old. Gould began racing on the flat under the name of Henry Joy, but later the son of Eolus and Lady Grace was re-christened and won many races, his career being cut short at thirteen years by death, due to accidental causes brought about by falling at a jump. Grandpa, the ten-year-old gelding by Grandmaster, out of Phillipa, by Baden Baden, is winning this season, as is Jimmy Lane, the unsexed son of His Grace and Anna Page. Jimmy Lane is nine years old, and was broken to harness before being raced; in fact, I am informed by Duff Green, his breeder, that the big chestnut gelding was driven on different occasions in the lead of a four-in-hand to sleigh. His Grace, the sire of Jimmy Lane, was sired by Eolus, out of Lady Grace, the dam of Gould. Lady Grace was by Romney, son of Curles, by Revenue, dam Grace Darling, Diablo's dam, by Jonesboro, from Ninette, the sister to Planet, and she out of the famous Nina, by Boston.

The recent death of the famous mare, Sunol, 2:08 1-4, daughter of Electioneer and Waxana, by General Benton, former world's champion trotter, and still holder of the record to high-wheel sulky, recalls the fact that of her two surviving foals, one of them the bay horse, Bon Axworthy, five years old, is owned in Virginia, and kept at Plain Dealing Farm, near Scottsville, in Albemarle county, where he has developed into a large, handsome horse with good manners and a way of going that indicates some speed at the trot. Bon Axworthy is a son of Axworthy, 2:15 1-2, sire of speed and race horse quality, and was bred by John H. Shultz, from whom the horse passed as a two-year-old to the late William N. Wilmer, of New York, who sent the colt to Plain Dealing, his country home in Virginia. At Mr. Wilmer's death, a couple of years since, Bon Axworthy became the property of the latter's brother, Joseph Wilmer, whose idea has been to keep Bon Axworthy sound and vigorous with road work until fully developed, and then to have him handled for speed later on. When Bon Axworthy was offered for sale by Mr. Shultz at Madison Square Garden, New York, the catalogue stated that with less than five weeks' training the colt had worked a half in 1:15 with the last quarter in 35 seconds—a 2:20 gait—in his two-year-old form, and this was done in such a way as to convince those who saw him that he possessed the elements of a fast trotter.

The oldest foals of Bon Axworthy, and they are very few, are now yearlings, which include a bay filly, out of Flora Jefferson, by Elk Nutwood, second dam of Flora Diamond, full sister to Red Wing, the dam of Faultless, 2:19 1-4, and Jerome Taylor, 2:21 1-4, by Bay Diamond,

son of Mambrino Patchen, 58. This filly is a solid bay in color and good looking, while she seems to take to the trot with evident relish. She was bred by the late Mr. Wilmer, but foaled the property of L. C. Watts, of Charlottesville, who obtained the dam while with foal. Mr. Watts, who is the Sheriff of Albemarle county, owns several choice brood mares, among them Flora Jefferson, and the daughter of Elk Nutwood has been mated with General Watts, 2:06 3-4, son of Axworthy, and world's champion three-year-old trotter. Sheriff Watts and General C. C. Watts, the owner of General Watts, 3, 2:06 3-4, at Charleston, West Virginia, are brothers and natives of Albemarle county, Virginia.

J. M. B. Lewis, President of the Interstate Fair Association, at Lynchburg, Virginia, is a breeder of thoroughbreds and hunters, and at Sweet Briar Farm his stable includes some very highly bred horses. Quorum, the son of Dr. MacBride and Quesal, by Alarm, is probably the best known member of the stud. He is a big, bay horse, and with size he combines a lot of finish and quality. He was awarded first prize in the class for best thoroughbred stallion one day at the Lynchburg Fair last fall, and on the following one went out and won at six furlongs in a canter, in 1:17, the track record. He also started in a couple of stake events at Roanoke, winning one and finishing second in the other. While being raced on the Jockey Club, the son of Dr. MacBride won a number of stakes. Mr. Lewis is an active member of the Oak Ridge Hunt Club, and Quorum was ridden to hounds all during the past season. The bay stallion is in fine shape now, and will be placed in training for the races this fall and be then used as a hunter during the season. Some fine thoroughbred matrons have been mated with him this season, while a number of good general-purpose mares also visited his court.

In the city stable at Mr. Lewis' is a very handsome chestnut gelding, 4 yrs. by Blue and Gray, dam Ilcora, by Audrain. This gelding captured seven blue ribbons at the fairs and horse shows last fall, and was ridden to hounds later. Ida B. 6, thoroughbred daughter of Inverness and On the Way, by Panique, was also used as a hunter and later driven on the road. Nearly all of the thoroughbreds owned by Mr. Lewis are broken to harness, as they not only seem to do better, but are far more useful than otherwise; in fact, most of the farm work at Sweet Briar is done by the brood mares there and excellent results are obtained by the constant use of them.

May Athol, the bay mare, by Glen Athol, 2:24 1-2, son of Gambetta Wilkes, 2:19 1-4, is being driven on the road by her owner, R. L. Barnes, of this city, alternately to single harness and to pole with her two-year-old son, a bay gelding, by Alfred Nelson, son of Alfred G., 2:19 3-4, sire of the lion-hearted race horse, Charley Herr, 2:07. May Athol has a trotting record of 2:30 and trials under 2:20, while few handsomer or more stylish mares have been seen in Virginia than this elegant daughter of Glen Athol, who won many prizes at the big fairs of the Middle West and Virginia Horse Shows.

THE SUFFOLK PUNCH IN VIRGINIA.

Editor Southern Planter:

As a result of the controversy between the Editor and breeders of Percheron and other types, and especially of the letters of Professor Quick, of the Virginia Agricultural Experiment Station, that have appeared in the Southern Planter, regarding the Suffolk horse, the first pure-bred Suffolk stallion was foaled on the Piedmont Farm, Marshall, Virginia, the property of F. W. Okie, on June 16th. This colt is a great-grandson of Wedgewood on his sire's side, and also a great-grandson of Cupbearer, the 3d. Wedgewood was the winner of seven championships in England. Cupbearer, 3d, is known as the greatest Suffolk sire that ever lived.

F. W. OKIE.

We congratulate Mr. Okie on this arrival and hope that he will live to be the progenitor of hundreds of these fine farm horses in this State. We are in correspondence with a gentleman in England, who is in close touch with the leading breeders of Suffolk Punches in that country, and hope, as the result, to be shortly in a position to state what can be done in the way of importing one or more stallions and a few mares, and will then see if, by the co-operation of a few farmers, we cannot arrange this.—Ed.

Since writing the foregoing note, we have, through the courtesy of Dr. W. J. Quick, received the following information. Mr. Okie purchased from Rector K. Fox, MtKisco, New York, the following Suffolk horses.

One stallion named Jubilee, height 16 hands, weight 1,700 pounds; foaled May, 1903. He is by Vespasian, dam Maud. Vespasian is by Wedgewood, the winner of fifteen blues and seven championships at the Royal shows, etc.,



Suffolk Punch Stallion, Rendlesham Major Gray, Champion at the Royal (England), 1908.

and was the greatest Suffolk horse that ever lived. Mr. Okie says Jubilee is everything a horse should be and can go along ten miles an hour and they work him every day beside mares, plowing and doing general farm work, and he serves mares quickly. He was bred by Peter Hopley, of Atlantic, Iowa.

Mare, Trinket, 16 hands high, foaled, 1899; weight 1,650; by Blazer; dam, Mirth; Blazer by Cupbearer III, next to

Wedgewood, the greatest Suffolk in England. She is about to foal to Jubilee.

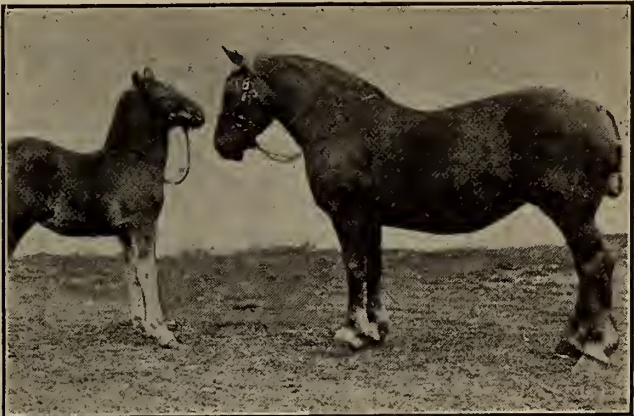
Mare, Rose, 16 1-2 hands, foaled 1900, weight 1,645; by Bell Boy, dam Smart. Bell Boy by Prince of May, a blue ribbon winner in England. She is in foal to Jubilee.

Filly, Rose's Princess of May, foaled 1908, by Jubilee; dam, Rose.

Trinket's Merrylegs, foaled 1907, by Jubilee; dam, Trinket. This filly is 16 hands, weight about 1,250 pounds, and is doing regular farm work.

Mr. Okie, in his letter to Dr. Quick, says:

Suffolks are, without doubt, the farmer's horse. My



First Prize Suffolk Punch Mare at the Royal (England), 1908.

stallion would surprise you if you could see him trot or pull a load. The only work I cannot put him to is in a double shovel plow, as I have not a man on the place that can keep up with him from sun up to sun down. He will work any man to death without apparent harm to himself. The older horses were all bred by Peter Hopley and the fillies by R. K. Fox. Next year I will have to sell my stallion as he is the father of my fillies and I will want to breed them to something else.

The foregoing bears out fully all that we said about Suffolks when we first urged their adaptability for farm work in this State, and also what Dr. Quick has said about them in our columns. We illustrate this article with pictures of two horses of this breed.—Ed.

COST OF A HORSE.

What does it cost to raise a colt to the age of four years? Wallace's Farmer gives the following:

The first and second years it is no more expensive to grow a colt than a steer. A colt may require a little more pasture and will require rather better fencing, but will stand hardship better than the yearling steer, although, to get the best results, both of them must have some grain in connection with forage. Give the colt a winter pasture of blue grass or second crop clover, plenty of exercise, and shelter in time of storms, and he will do better and can be carried through at less expense than the steer.

At two years old, if not before, the steer must be put on feed, and it will cost at least fifty bushels of corn

with other feed to fit him for the market. The filly at two years old may be bred if she has been well fed and nourished; if not, then at three years old. She should be able to pay her way in the way of light work; and where the farmer has a surplus, should be sold to some man who can work her or the gelding for two years, making them pay expenses, and sell them on the market at a higher price than they cost in the three-year-old form.

We think, therefore, that there is good profit to any farmer in raising colts for the market, provided he limits his operations to the number of mares kept on the farm. In fact, he should keep three brood mares where he really needs but one. He can afford to do this if he will mate them every year with the right sire.

The greatest profit to the ordinary farmer lies in growing draft colts, and the heavier the better, provided they are sound. The 1,600 pound mare mated to an 1,800 or 2,000 pound stallion will produce a type of colts which, if properly nourished and cared for, will bring, if not the highest price in the market, yet a price that will abundantly pay the farmer for his feed and care. The greatest care, however, should be exercised in securing soundness. No mare should be used for breeding purposes that has any defects capable of transmission by heredity; for instance, moonblindness or defects of the bony system. Spavin may not be transmitted, and perhaps is not, but the weakness that develops spavin undoubtedly is inherited.

THE STOCK COMPANY STALLION.

Editor Southern Planter:

I don't know what cheerful philosopher originated the saying "There's a sucker born every minute, and they never die," but whoever he was, he had some brains in his head, and was an observer of human nature.

Of all the "get rich quick" schemes and "good luck" investments I think the one clothed in the guise of a "stock company stallion" is the most insidious, and the most likely to impose upon the otherwise shrewd investor; coming as it does backed by precedent of other sales, the so-called advantage of paying to yourself the money spent for service fees, the patriotic appeal of improving the horse stock of your neighborhood, the assurance of being one among many other intelligent gentlemen to make the same investment, all coupled with the fact that you are not expected to produce high-class race horses, but only general-purpose animals such as it is no trouble to produce, makes it a hard proposition for the liberal-minded man of superfluous means to turn down. Yet, how few, how lamentably few, companies formed by the oily-tongued promoters ever succeed in coming out financially.

The trouble is twofold; in the first place, it is the most expensive way in the world to sell a horse, and all the expense of the sale by this method, together with the bad debts contracted, must, in the end, be paid by the investor, and, secondly, the amount of money ultimately turned over to the owner varies so and is so very long in coming as to make it the last resort for only those animals which can be disposed of in no other way. One rarely hears of a really good trotter, pacer, Jack, draft horse, or saddle horse being sold in this way. It is gen-

erally either a French or German coach horse or a Hackney which is used to entice the unwary.

Again, the reason is twofold. First, these are the most unsalable horses, and, second, they are the breeds of which we Americans know least of, and can in consequence form but a hazy idea of their actual value. Now, I have no intention to underrate the value of these breeds, especially the latter. They have a legitimate place in the production of the carriage horse, but what I do say is that if you really want to go into the breeding of carriage horses that are high actors, you must needs expend on every animal you turn out at a fancy price just about the same amount of feed and breaking and biting and training as would suffice to turn out a 2:30 trotter or 2:25 pacer, and you must have just as smart a specialist when you come to complete his education.

The production of any special purpose horse requires some skill, the trotter, pacer, high actor, saddle horse and hunter, all call for intelligent handling if you expect to get big prices (the breeding of thoroughbred race horses is in a class by itself). It is only in the breaking of draft animals that a light hand and good brain are not absolutely indispensable, and even then they count to some extent. Now, the promoter will harp upon the sure and regular profit of breeding general-purpose animals, but my experience has been that all general-purpose horses are, as a rule, sold for so near their actual cost of production as to leave practically no margin of profit beyond the cost of the food consumed. And the reason is obvious, for every misfit of the trotter, pacer, high actor, hunter, saddle horse, draft horse, and even thoroughbred goes to swell the ranks of the general-purpose army, and so long as the breeder of these high-class horses can get cost for his culls he can make a living out of the ones that bring the big prices. Therefore, he who seeks to produce the general-purpose animal is forever fore-doomed to wander down the "cool sequestered vale of life" pursuing the even tenor of a very unprofitable way, and a general-purpose animal is all any man can expect from the average farm mare, when crossed with a coach or hackney stallion. I have seen a great many animals so bred, and the ones which inherit enough from the sire and little enough from the dam to make high class carriage horses are as rare as the trotters in the 2:10 list from the same kind of mares.

If, then, any breeder desires to breed coach horses with uniformity, he must be sure of kindred blood in the dam, and will almost without exception get better horses at lower prices by going himself to the breeder or importer than by buying or helping to buy any particular horse that chances and the overloaded owner may send to his particular neighborhood.

But, to a practical horseman, the tales these promoters tell are very amusing, and the ingenuity they display in finding reasons for you to buy are very diverting. For instance, the German Coach horseman will tell you how General Miles and ex-President Theo. Roosevelt approve of the breed because the former rode one twelve miles up hill at a gallop with all his military accoutrements attached to himself and the saddle, and at the end of the ride the horse was not even out of breath or in the least fatigued. Just imagine the absurdity! There is not even

a thoroughbred running horse living who would gallop twelve miles up a two per cent. grade with a one hundred pound boy on him who would not show it at the end of the journey; and the horse that could carry any one at all for twelve miles at a stretching gallop up any grade worthy the name of a hill has never been foaled.

The Hackney promoter builds all his big yarns on the fact that Bellfounder, the sire of the dam of Hambletonian X, was a hackney horse, overlooking the very obvious fact that Bellfounder was imported to this country in 1822, long before Mr. Euren, the compiler of the Hackney stud books, was born. Of course, we all know both Messenger and Bellfounder carry a cross of Blaze, an English running horse that was foaled in 1733, but when we remember that Mambrino, the sire of Hambletonian, carried only thirteen-sixteenths of Blaze blood, while Bellfounder possessed an equal amount, we are forced to the conclusion that it was very nearly obliterated and was probably about as valuable to him as the cross to Godophin Arabian is to the average French Coach or Percheron horse which certainly possesses few of the characteristics of the thoroughbred running horse which traces to the same ancestor.

The claim of the French Coach advocate is even more far-fetched, although it, like the foregoing, depends for its value on a comparison with the well recognized utility of our American trotters. He tells you that the French Coach horses are more prepotent in controlling trotting action than these American congeners, and cites the case of the leading French Coach sire, who has, if I remember correctly, about 300 of his get in the speed lists of the breed, as compared with our best horses, which are hovering around the 200 mark; but he fails to mention that Gambetta Wilkes and Nutwood, etc., required of their get a record of 2:30 for trotters, and 2:25 for pacers for a full mile; while the French Coach breeder only asks his colts to go a shorter distance at the rate of a mile in 3:15, a feat which would probably be equalled by every colt ever sired by one of any of the twosome of our leading American sires from mares of equally good breeding, were any effort made to bring about such an insignificant result.

But while all this is amusing, the talker, it causes little mirth in the soul of the victim who finds he has purchased for \$3,000 a horse which he cannot sell for \$300, and it is out of sympathy for this class that I write these lines. You have, I fear, been bamboozled, friends, but let us hope that you have at least gotten a good, sound, young horse for your money, and when you put the experience in the scale, perhaps you are the gainer for, surely, you will be skeptical when the next "something" is offered you for your hard earned dollars.

Mathews Co., Va.

PERCIVAL HICKS.

EXPERIENCE WITH S. C. WHITE LEGHONS.

Editor Southern Planter:

I have been a constant reader of The Planter for a number of years and have been a close observer of the poultry notes especially, as I am much interested in the poultry business and have a nice flock of S. C. White Leghorns that are hard to beat and I feel like I am doing them an injustice not to speak of them while others are talking

of their flocks. My first hatch was taken off January the 31st of this year. I took from the incubator 162. Of this number I sold 71 broilers at nine weeks old that netted me \$27.52 and I have one cockerel and seventy-five pullets now from this hatch. The first of these pullets began laying June the 5th, just four months and five days old and from the appearance of the rest of them they will all be laying by July 1st. I also have 174 yearling hens that are doing excellent work now in laying and in addition have about 500 more pullets and cockerels.

Campbell Co., Va.

J. L. CAMPBELL.

THE TURKEY BUZZARD.

Editor Southern Planter:

I am exceedingly pleased to see the decided stand you are taking against the further protection of the turkey buzzard, and while this will undoubtedly meet with much opposition for a time until all the facts are laid bare, you may rest assured of the hearty support of serious thinking people who have given the matter attention, by having been brought face to face with facts.

As a scavenger, the buzzard undoubtedly has had his place, but unquestionably he is to-day one of the greatest spreaders of infectious diseases among domestic animals, and any possible service the buzzard can render as a scavenger is far outweighed by the seriousness of outbreaks of deadly diseases, which he undoubtedly spreads from place to place. Such resistant organisms as those producing anthrax, blackleg, hog cholera and tuberculosis, besides a host of others, may be conveyed for long distances and deposited on heretofore non-infected ground hence, the mysterious outbreaks to which we are too frequently subjected.

The writer can recall the outbreak of blackleg on a farm where the disease had not before been known to exist. Upon investigation it was found that during the previous fall and winter numerous buzzards had been in the habit of frequently the small range occupied by the calves, while at five miles distance numerous cattle had died from the disease and were left to be devoured by buzzards.

On a farm in Eastern Virginia hog cholera made a sudden appearance, yet no cholera had existed to the owner's knowledge within several miles. No fresh pigs had been brought in nor were there known any other means by which the disease could possibly have been imported except by buzzards. These are costly experiences.

Mr. Editor advocate the proper disposal and destruction of all dead animals, also the early destruction of one of the greatest enemies the stock raiser has to contend with to-day in the South—the turkey buzzard.

JOHN SPENCER, Veterinarian.

Experiment Station, Blacksburg, Va.

FINE RHUBARB.

Mr. Mark J. Thompson, of Rio Vista, has sent us some fine specimens of rhubarb grown on his truck farm near this city. It is the finest rhubarb we have seen since we came here and the equal of much of that grown in England, where it especially flourishes. In the lot sent the stalks averaged from fifteen to eighteen inches long and four inches in circumference.

Miscellaneous.

THE COMMISSIONER OF AGRICULTURE.

Editor Southern Planter:

It may seem impertinent for one who has no vote in Virginia to have anything to say about Virginia offices. But while I am an expatriated Virginian, I feel a great interest in the prosperity of the Old Dominion, and have long noted with regret that her Department of Agriculture has not kept pace with similar organizations in other Southern States.

There has been little co-operation with other organizations for the uplifting of the farming interests of the State, while in North Carolina the Board of Agriculture has unceasingly co-operated with the Agricultural and Mechanical College; in fact, built the great agricultural building at the College, and the horticultural hall and greenhouses with its own funds, and has conducted Farmers' institutes in a systematic way in co-operation with the College, until there is no State in the country which has a better system of institutes.

What has Virginia done? The annual Institute has been organized and developed with no co-operation of the Department of Agriculture, and farmers' institutes have been of a desultory character, without local organization or system that would make them effective.

Whose fault this is, is no part of my purpose to say. But I think it is evident that there is need of a change that will bring the work of the office or Commissioner of Agriculture into close association and sympathy with all the organizations in the State for the benefit of the farmer, and the man who can do this is the man I hope the people will choose for the position. Therefore, I was glad to note the editorial in the June issue in regard to the candidacy of Mr. J. Thompson Brown. Mr. Brown has shown himself a broad man in all the positions he has filled in the agricultural organizations of the State. If what Mr. Beverley says is true, and I have no doubt that it is, there is certainly need for a change in the office of Commissioner of Agriculture. A year or two ago there was a fine opportunity to organize a compact system of Farmers Institutes, which, for some reason or other failed, and Virginia is falling behind all her sister States in the South in this respect, and if Mr. Brown can infuse life into the Department, and I believe he will, it is to be hoped that his candidacy will be successful. I leave it to those who know and are on the spot to discuss the shortcomings of the present Commissioner, but what I do know and what is generally known is that the Virginia Department of Agriculture has been a failure, and should be brought up to better things.

In North Carolina the Board of Agriculture owns farms representing all the different soils of the State from the mountains to the sea. These five test farms are under efficient management, and bulletins as valuable as those from any Experiment Station are sent out to the people of the State. They control with the strictest inspection the sale of fertilizers till the farmers of North Carolina are better protected from frauds than almost any other State in this country, and now are controlling in the

same way the sale of illuminating oil. The influence of the Board is felt all over the State, while in Virginia few farmers know anything about their Department of Agriculture.

Perhaps it may be said that it is none of my business, but I cannot help feeling an interest in the prosperity of the farmers of the State that gave me birth, and a personal interview with Mr. Brown has convinced me that he will do all in his power to raise the Department to its proper place, and make it co-operate with all organizations for the uplifting of the farmer. Hence I bid him Godspeed.

W. F. MASSEY.

The failure of the plan for organizing Farmers Institutes under the charge of a State Director of Institutes, to which Professor Massey refers was caused by the action of the Commissioner of Agriculture and his Board, who declined to co-operate with the Board of the Agricultural College in a joint appointment of a Director paid by the two Boards in certain proportions and to work on behalf of both Boards in advancing the Agricultural interests of the State through Farmers' Institutes and other teaching methods. We strove hard to bring this about, but found the well known antagonism of the Commissioner of Agriculture towards the Blacksburg Institution too powerful for us, and so the State lost a splendid opportunity of benefitting the farmers in order that the Commissioner should be able to magnify the importance of his own office at much more cost.—Ed.

THE VIRGINIA STATE FARMERS' INSTITUTE.

The Directors of the Institute met recently at the office of the Secretary in this city and took the preliminary steps for the holding of the next meeting. Since that time the Secretary has been busily engaged in making arrangements with the railroad authorities as to transportation facilities and with the Charlottesville city authorities in perfecting the necessary local arrangements. The programme committee has mapped out a tentative program and the Secretary is now completing arrangements with the gentlemen selected to discuss the different subjects in order that the program may be prepared and sent out to the members during this month. In accordance with the evident desire of a large number of the members, it has been decided not to have so large a number of speakers on this occasion as at previous meetings in order to give time for fuller discussion of each subject by the members. There will be on each day of the meeting at each session three or four subjects only dealt with and the speakers selected to handle, these are gentlemen who have made the subject their specialty, and after they have spoken the matters will then be thrown open for discussion by the members generally and ample time will be given to thresh out each feature. It is hoped in this way to secure continued interest and a wide expression of opinion, from which undoubtedly many valuable lessons will be learned. The subjects of farm improvement and management and the

growing of special crops, especially alfalfa, will receive a large measure of attention and will be handled by experts of wide experience. The Horticultural and especially the fruit interests of the State will have a large place in the program, as Charlottesville, the place of meeting, is the centre of the great fruit producing section of the State. Some of the leading specialists of the country and leading local producers have been secured to deal with this feature. Live stock and dairy interests will also have conspicuous consideration, as Piedmont and Northern Virginia is especially interested in this branch of farming, producing milk, cream and butter for city consumption in large quantities, and in connection with this subject dairy inspection and the diseases of cattle will come up for consideration and should elicit considerable discussion, and it is hoped will result in some action being taken to place these questions in a more satisfactory condition for the farmers. The last day of the meeting will be devoted to the inspection of some of the fine orchards and farms in the neighborhood of Charlottesville and to a picnic to Monticello, the home of Jefferson, which is a most delightful place. Under the terms of the new charter of incorporation, the governing body of the Institute has authority to take up for consideration and action all subjects upon which legislative or other action is desirable, and it is hoped that this feature of the Institute will be fully availed of and that farmers will attend and make their wants known and have these put in train for action by the Board. Hitherto there has been in the State no organization with authority to represent the farmers before the Legislature, the Railroad Commission, or other powers competent to redress grievances. This is now provided and farmers should avail themselves of the help thus offered. Programs (ready about 20th July) and other information can be had from B. M. Shepherd, Secretary, Box 840, Richmond, or at the office of the Institute, 28 N. 9th St., Richmond.

THE ELECTION OF COMMISSIONER OF AGRICULTURE FOR VIRGINIA.

Editor Southern Planter:

I agree with you, Mr. Editor, in saying that it is unfortunate that the Commissioner of Agriculture should be elected by the people, and thereby cause a political squabble for the office.

I also appeared before the Committee of Agriculture of the Constitutional Convention, of which the Hon. H. C. Stuart was Chairman, and advocated the election of this office by the State Board of Agriculture, but the Convention saw fit to reverse the report of the Committee and hence you and I and all others who are interested in the Department of Agriculture are necessarily forced into the issue which is now before us as to who is the better man of the two now offering themselves for the position of Commissioner.

When Governor Tyler re-organized this Department and appointed Mr. Koerner Commissioner, I also became a member of the State Board of Agriculture. I served several terms as President of the Board, and thereby was thrown in close relations to the Commissioner. I regret very much to say that Mr. Koerner did not measure up to

my ideas of the proper man for the position, and as I endorse all that Mr. J. H. C. Beverley said in your last issue, I will not go into details of why I came to that conclusion.

For reasons stated by Mr. Beverley and other causes, I gradually lost confidence in Mr. Koerner and, after serving with him for seven or eight years, I am forced to the conclusion that a change would be beneficial to the more efficient and more economical administration of the affairs of this Department.

Now I have known the Hon. J. Thompson Brown all his life and, between the two, I unhesitatingly give him my support, and ask all who have any confidence in my advice to do the same, bearing in mind the exceptional advantage I have had for judging the situation.

Old Church, Va.

JULIAN M. RUFFIN.

CORN SHOWS.

Editor Southern Planter:

I am glad to note that people are demanding corn shows that teach something. What Mr. Samuel B. Woods says in the June issue is what I have been urging for years, and I am glad to note that in various sections they are outgrowing the childish shows of pretty ears, and are offering premiums for yields and economy of cultivation.

While premiums for the greatest yields per acre are an improvement on the senseless practice of giving premiums for a few ears of corn which come nearest to filling the arbitrary standard of the score card, I am not sure that extraordinary yields, made at a cost that would not be warranted in general practice, do much to advance good farming. Devoting labor, manure and time to a single acre until the crop costs a dollar a bushel, may make a great yield and gain a premium, but it does not teach as much as a smaller crop over a large area, made at a cost of ten or fifteen cents per bushel.

It is not always the greatest yields that are the most profitable, and I think that what the corn shows should undertake is to promote business methods in corn growing as in any other crop on the farm. Uncommonly large yields may be less profitable than smaller ones, and what we need to know is how to make the margin between the cost of cultivation and the market price as wide as possible.

The man who scratches year after year over a piece of land so poor that it will not make corn enough to feed his mule, needs to learn how he can make his work more profitable, rather than to read how Smith or Jones has made more corn on an acre than he has made on twenty, while spending more money on the acre than the corn would bring in the market. Of course, it is interesting to know how much corn an acre of land can be made to yield, but the corn shows should have a higher purpose, and aid in the general advancement of business-like farming. I am glad, then, that there is evidence in many of the schedules of the corn shows of a little sanity, and I would suggest that, in addition to prizes for yields per acre, the greatest thing that the corn shows could do would be to offer good prizes for the crop, over the contestant's whole field, which shows the most profitable production, or the greatest yield on

a farm that shows the lowest cost of production, sworn statements to be made of the methods of cultivation and rotation on the farm that enables the farmer to produce such results. Such a contest would be worth more to farmers than all the pretty-ear shows that ever were held, none of which have ever advanced the crop production at all in my opinion, for our average production of corn is lower to-day than it was fifty years ago, according to the statistics of the old Patent Office reports and the Year Books of the Department of Agriculture to-day. Breeding corn for the sole purpose of making ears of a certain standard to pass the score card will never increase the profitable production of the crop. Breeding to greater yield and better and more economical methods of cultivation are what farmers need to learn.

The idea that the Southern lands are worn out, and that the "corn belt" must ever remain in the middle of the West is a notion that should be combatted. While Mr. McQuarrie, down in West Florida, makes 100 bushels per acre, there should be as good crops grown anywhere in the South. In fact, the South should be the corn belt, because there the crop is never cut by frost, as it often is in the western corn belt, and with good farming the South should be able not only to furnish New England with cotton, but with corn and pork.

W. F. MASSEY.

THE NOMINATION OF THE COMMISSIONER OF AGRICULTURE OF VIRGINIA.

Since our last issue went into the hands of our subscribers announcing the Hon. J. Thompson Brown as a candidate for the Commissionership of Agriculture of this State in opposition to Mr. Koiner, Mr. Brown has been active in visiting different sections of the State and putting himself in touch with local organizations. We learn from him that he has been more than pleased with the reception the farmers have given him and he is convinced that a large body of them are in harmony with his views that it is time we had a change in the holder of this office. We have been congratulated by a large number of our readers that we had the courage to take hold of this question and disregard the taunts of the few that we were departing from the true field of the work of The Planter. Everything that concerns the welfare of the agricultural interests of the State we regard as within the purview of The Planter, and we shall never be afraid to take hold of any subject coming within this definition because of fear that to accomplish results means antagonism of the politicians. We have never bowed the knee to any political party and never will do. The Planter, thank God, is strong enough to do what it believes is right without fear of consequences. If the farmers of the State are not vitally concerned in the character and qualifications of the man who holds the office of Commissioner of Agriculture of the State, we know of nothing in which they are interested. They find the money to pay his salary and the expenses of the Board of which he is the executive officer, and that money is required by law to be expended for their benefit and it is of the essence of the effectiveness of the work of the Board that the office should be held by one who, like Caesar's wife, should be above suspicion of executing that work except

in the way to be most effective for the advancement of the agricultural interests of the whole State. Because we have not believed and do not believe that this has been done in the past, we have essayed to take a hand in this question.

In our last issue we said little as to Mr. Koiner. We contented ourselves by saying that "It is notorious that up to the present time no such co-ordination or harmonious working (of the different agricultural institutions of the State) has been possible to be achieved mainly through the lukewarm attitude, to say the least, of the present Commissioner towards every other instrumentality established for dealing with the different phases of the agricultural problems of the State." For further justification of the position taken, we relied on the excellent article of the Hon. J. H. C. Beverley, late and for many years a member of the Board which we published in the issue. That we did not speak without warrant as to the absence of co-operation with other instrumentalities has been abundantly confirmed since we wrote, by the fact that the executive officers of three or four of the leading organizations in agricultural advancement in the State have called on us and stated positively that they could never secure any co-operation from Mr. Koiner. This is true as to the Agricultural College, as to the farm demonstration work of Mr. Sandy, as to the State Fair, and as to the Dairy Commission. What Mr. Beverley said has been supported by letters we have received from present and late members of the Board, which we publish herewith. We might have gone much further and quoted the report of the Legislative Committee, which investigated the Commissioner's office and reported to the last legislature, but we preferred that this should be brought out elsewhere and are glad to know that Mr. Brown himself has done this in a speech at Boynton. This part of his speech we report fully and if, after reading it, any farmer in the State can say that Mr. Koiner is a proper person to fill the office of Commissioner of Agriculture we shall despair of being able to define who is a proper person to fill any fiduciary position in the State government. Let it be borne in mind that this is not the report of any Board having relations with the Commissioner of Agriculture, and therefore liable to be influenced either favorably or unfavorably towards the holder of the office. It is the report of a Legislative Committee dealing with all the fiduciary officers of the State, and to all of these, except the Commissioner of Agriculture, it seems to have given a clean "bill of health." To the Commissioner it gives a condemnation as severe as could be imagined, branding him as a wilful disobeyer of the law and stating positively that it was unable to verify any of his published accounts of the receipts and disbursements of his office since he came into office, except for one year. And yet, for all this, Mr. Koiner has never asked redress. "Silence gives consent." Apart from the fiduciary part of the report which we leave to speak for itself, we would advert to one other fact mentioned therein. Mr. Koiner has, during the whole time he has held office, been constantly telling the farmers that he has given them pure fertilizers and ensured them against fraudulent goods. As a matter of fact, Mr. Koiner had nothing to do with the preparation of the fertilizer law.

It was prepared by a Committee of the Board. If effectually executed, it would have given fertilizer in which the farmers could have had confidence that they were getting what they bought, but, what says the report as to this execution of the law? We quote: "It will also be observed from the statement of 'fertilizers seized' attached to this report, that there had been a long line of violations by various concerns manufacturing fertilizers. Out of a total of thirty-six violations only one case has been reported to the courts." Call this effective execution of the law and protecting the farmers! Surely, effrontery could go no further. How much fertilizer has been palmed off on the farmers which had no legitimate right to have the tags attached no one knows, but when it is borne in mind, as stated in the report of the Committee, that "There appears to have been very little care in the handling of these tags. First in the obtaining; second, in the care taken of them * * * they are ordered from some printing firm in boxes of one hundred each. These boxes are placed in a storeroom to which others than the stamp clerk have access. Numbers of these tags could be removed without his knowledge and, if sold to the consumer, would thereby entail a loss to the Department." This, however, is not all that could have resulted from such a handling of them. When taken, they could have been attached to any rubbish called fertilizer, and the farmer buying this would believe he was buying inspected goods. The man who so carelessly handled these representatives of inspected goods as to leave it possible for both the Department to have been robbed of revenue and the farmer be robbed of his money is surely not such an individual as should be given a similar opportunity again. It would seem more than probable that the Department has been robbed of revenue in this way, for in the State of North Carolina, with a fertilizer tax only five cents larger than that in this State, the revenue received there is in excess of \$100,000 per year as against \$41,938 in this State. It would not seem probable that there could be such a great difference in the tonnage of fertilizer sold in the two States as to account for this great discrepancy in the respective receipts with only a five-cent difference in the rate. We append the report of Mr. Brown's speech at Boydton, so far as it deals with the report of the Legislative Committee and also the letters from present and late members of the Board confirming Mr. Beverley's statements in our last issue. All these we commend to the careful attention of our readers, and with confidence that the result of such reading and a consideration of all that has been said in this and the last issue on the question will result in the nomination of Mr. Brown to fill the office. We have no personal interest in the question. It cannot make a cent's difference to us personally which gentleman is elected, but it can and will, in our opinion, make a vital difference in the agricultural development of the State. With Mr. Brown elected, the Board of Agriculture and all the other agricultural organizations will work in co-ordination and harmony, and this must result in material prosperity in which every farmer will participate.

Extract from Mr. Brown's speech at Boydton on June 21:

I hold in my hand an official document, House Document No. VI., comprising the "Report of the Auditing Com-

mittee, Appointed Under the Act of March 17., 1906, to examine the Books and Accounts of Officers at the Seat of Government."

This Committee sat during the recess of the Legislature making its report, bearing date August 15, 1907, to the following Legislature, which met January, 1908. This Committee examined into and made report upon the following offices—Auditor of Public Accounts, Treasurer, Second Auditor Secretary of the Commonwealth, Corporation Commission, State Farm, Virginia Penitentiary, Laurel Reform School, and the department of Agriculture. With the latter alone we have to deal. It should be stated that Mr. Koiner was the Treasurer of the Board of Agriculture and the executive officer of the Department during the whole period (1899-1906) covered by this report.

This report is unanimous and is signed by the joint committee of the House and Senate appointed to audit these matters, and by the expert accountants, W. McK. Evans and George S. Crenshaw, whose reports the Committee adopts as its own.

Under the heading "Department of Agriculture," I read from the report, pages 5 and 6:

"We regret to report that we did not find the affairs of this Department in a satisfactory condition. The book-keeping was of such a character that it did not properly show the transactions of the Department, nor did the records show that the proper attention had always been paid to the law regulating the conduct of the Department."

And on page 43 of this report I find this statement from the expert accountants:

"We began to audit with October, 1903, but found it necessary to go back to January 1, 1899, the beginning of the administration of Mr. Koiner as Commissioner of Agriculture."

A further analysis of the Committee's report shows:

First, that as Treasurer of the Board of Agriculture, the Commissioner did not obey the law.

As evidence, I cite the report, page 6:

"The Commissioner took the liberty of depositing the funds derived from the sale of fertilizer tags in banks in his own name as Commissioner until such time as pleased him to cover them into the treasury, instead of depositing such funds immediately with the State Treasurer, as directed by law."

Second, that the Commissioner did not enforce the law, but allowed manufacturers of fertilizers violating the law to go scot free when it was his duty to report them to the Commonwealth's Attorney—thirty-six cases of violation detected by his inspectors, one case reported to officers of the law.

In evidence, I cite the same report, page 6:

"It will also be observed from the statement of 'Fertilizers Seized,' attached to this report, that there had been a long line of violations by various concerns manufacturing fertilizers. Out of a total of thirty-six violations, only one case has been reported to the courts."

This, in spite of the fact that the whole revenue of the Department of Agriculture was derived from a tonnage tax of fifteen cents on each ton of fertilizer sold in the State and the Commissioner was by statute, charged with the administration of the law and responsible for its rigid enforcement.

Third, that Mr. Koiner rendered incorrect statements to the Auditor, in order that he might retain certain collections for use in the Department.

In evidence, I cite the same report, page 6.

"Under a former ruling of the Auditor, which we understand has since been revised by him under the advice of the Attorney General, all unexpended funds to the credit of the Department of Agriculture at the end of a fiscal year, lapsed into the general treasury, and were lost to that department. To avoid the effect of the ruling and to maintain the efficiency of the Department by carrying to completion the plans of the Board, the Commissioner, seemingly without objection from the Board, formed the practice of reporting in one year funds

which were, in fact, collected the year preceding, and of reporting as disbursed certain sums of money which were still in his hands unexpended. The most conspicuous case of this kind is found in his report for 1903-4, when he reported \$8,173.42 as having been collected on October 2d, 1903, when, in fact, that sum was collected between August 15th and September 5th, 1903, and should have been covered into the treasury on account of the fiscal year ending September 30th, 1903.

"While these practices may have resulted from an excessive zeal for the betterment of the Department on the part of the Board and the Commissioner, they are, nevertheless, to be most strongly discouraged."

Whatever excuse may be offered, this is clearly false accounting by a State officer, and directly in defiance of existing law, as stated by the Committee.

Fourth: That funds of the Department were expended without proper vouchers, and much of it by Mr. Koiner.

In evidence, I cite the same report, page 6:

"We have examined this office from the day the present Commissioner was appointed to the present period. The disbursements in this office were in many cases irregular, and, as will be seen by the report of the expert accountants, many of the payments were made by warrant drawn in the name of 'G. W. Koiner,' unaccompanied by vouchers showing for what purpose the money was expended. This practice cannot be too highly condemned."

I cite further from accountant's statement, page 43, same report:

"Sundry vouchers presented to the Committee for their information, etc."

"You will note that we have taken these vouchers from the beginning to the end of the term of the present incumbent to show the methods which have obtained during the entire term."

Vouchers to G. W. Koiner.

Not accompanied with detailed statement, etc.	
1899, Sept. 30, No. 858, Contingent Fund.....	\$ 780 86
1900, Mar. 31, No. 941, Back salary, Contingent Fund	125 00
Mar. 31, No. 949, Contingent Fund.....	200 00
April 15, No. 955, Contingent Fund.....	1,000 00
May 9, No. 976, Contingent Fund.....	1,000 00
Dec. 31, No. 87, Postage Jan. 21, 1900, to Mar. 1, 1901	800 00
1902, Jan. 31, No. 465, Postage for Members Board	18 00
Jan. 11, No. 685, Contingent Fund.....	100 00
June 30, No. 701, Supt. Heiges.....	125 00
Dec. 23, No. 952, Deposit Inst Fund	32 00
1903, Mar. 31, No. 1059, Mar. salary.....	166 00
Apl. 16, No. 1110, Bond Premium.....	75 00
June 19, No. 1206, Tobacco Cloth.....	20 00
1905, Jan. 19, No. 2434, No voucher signed.....	16 00
Nov. 21, No. 2479, No Voucher signed.....	25 00
Dec. 2, No. 2539, Expense Train.....	500 00
Feby. 8, No. 2616, Bond Premium.....	75 00

It will be noted that the above are not given as complete lists of vouchers without accompanying statement of expenditures, but samples "to show the methods which have obtained during the entire term":

FIFTH: That from Mr. Koiner's induction into office January 1st, 1899 up to 1906, with the exception of one year, every annual report issued by him as showing the financial operations of the Department was arbitrarily made up, and not susceptible of proof from his books.

In evidence, I cite the same report, page 6:

"The annual reports of the Commissioner seem to have been arbitrarily made up, and the expert accountants, with one exception, were unable to verify them."

I cite further from accountants' statement, page 44, of same report:

"We were unable to check any of the financial statements published in the Annual Reports of the Department, except that for the year 1905, or could we secure from the office force any of the detail from which said reports were made up. We were informed that

they were made from the books turned over to us for examination, but few of the figures could be worked out, although we made an effort to do so. The Department having practiced carrying receipts from one year to another as explained above." * * *

In this connection the accountants also say, same page, same report:

"We file with this report a number of questions and the answers to same by Mr. E. Bruce Chesterman, Chief Clerk to the Commissioner, which speak for themselves. * * * This examination developed the fact that at no time had the books been balanced and closed at the end of the year; or has any effort been made to balance with the State Auditor's books."

SIXTH: This report further shows most careless and unbusiness-like methods in the issue and sale of fertilizer tags, the source of all revenue to the Department.

In evidence I cite the accountants' statement, page 44, same report:

"There appears to have been very little care in the handling of these tags. First, in the obtaining; second, in the care taken of them. As these tags represent the basis of the accounting of this department and have a monetary value, they should be treated accordingly. At present they are ordered in lots from some printing firm in boxes of 100 each. These boxes are placed in a store room to which others than the stamp clerk have access. Numbers of these tags could be removed without his knowledge, and if sold to the consumer would thereby entail a loss to the Department."

As members of the State Board of Agriculture, we desire to say, that we have carefully read Mr. J. H. C. Beverley's article in your June number, being familiar with the circumstances, we endorse his article as a conservative statement of facts:

W. H. EGGBORN,

Member State Board of Agriculture, Eighth Congressional District of Virginia.

A. O. MAUCK,

Member Second Congressional Dist. of Va.

We also, as ex-members of the Board, endorse Mr. Beverley's statement.

J. M. McBRYDE,

J. T. COWAN,

The endorsement of Mr. C. W. Heater and the Hon. Julian Ruffin will be found elsewhere in this issue.

We especially invite attention to the letter from Mr. Ruffin, as he is a gentleman of the highest integrity and a large and most successful farmer and had especial means of coming to a conclusion as to Mr. Koiner's fitness.

THE ELECTION OF THE COMMISSIONER OF AGRICULTURE.

Editor Southern Planter:

In the June issue of the Planter there was an article from the Hon. J. H. C. Beverley, which I read carefully. As a member of the Board for ten years, and, therefore, fully cognizant of the facts therein dealt with, I can say I think it a very conservative statement of the case against Mr. Koiner. I hear that some of Mr. Koiner's friends at Richmond are trying to discount the statement by saying Mr. Beverley was sore and prejudiced, and has misrepresented Mr. Koiner. This I consider a malicious misrepresentation of that honorable gentleman. Mr. Beverley is a man above such conduct. He comes out like a man publicly, and over his own signature, says what he has to say without fear of the consequences because he knows that he speaks the truth. If we had more such men in office there would be no necessity for such statements to be made. It is high time for

a change in the Commissionership of Agriculture, for, as the Department now exists, it is simply a farce. With a good man for Commissioner: I mean a man of executive and financial ability, this department could soon stand second to none in the United States in its ability to aid in the advancement of the agricultural interests of the State. Does anyone in Virginia know anything about the financial position of the Department? The last attempt at a financial statement made to the Board by Mr. Koiner was January 15, 1909, at which time there was \$1,578.13 in the treasury, with unpaid debts against the Department of \$5,500; or, in other words, the Agricultural Department of Virginia was \$3,921.87 in debt, with an annual report to print, which would cost over \$4,000.00 more. The office salaries alone, under the system of management of Mr. Koiner absorb very nearly one-half the receipts of the Department. Immigration work has been a failure. The reports given out by Mr. Koiner from time to time, for the purpose of making people believe that he has done great work along that line, are not justified by the facts. He has never given out how many of the number of immigrants who have come into the State are women and children. For all these, the Department has paid agents in Europe so much per head. Mr. Koiner now finds that this is a very unpopular thing with the Labor organizations of Virginia, hence, says little about it now; but says that he is after home-seekers. Why did not Mr. Koiner make a financial statement at the last Board meeting? Why did he have the next Board meeting placed for October? Was the primary in the way? I guess so. Mr. Koiner has always been opposed to Blacksburg College or any other farmers' organization in the State that he did not run. Let the voters wake up, and do their duty and vote for the Hon. John Thompson Brown. I believe Mr. Brown, if elected, will soon make the Department a credit to the grand old State, and show that it can be of inestimable value to the farmers.

C. W. HEATER.

Middletown, Va.

THE CORN PRIZES.

Editor Southern Planter:

The Times-Dispatch deserves a great deal of credit for suggesting the raising, through general subscriptions, of a cash corn prize and starting the ball in motion by giving a liberal amount. It says: "For various reasons it has seemed best not to make the yield per acre the basis of competition and to focus the test wholly upon the grade of the product." Stating that this conclusion was reached after consultation with certain farmers, and further, that corn prizes offered in Indiana and Illinois, under the conditions named, had resulted in adding largely to corn production in those States. I am afraid the Times-Dispatch has been misled by the advice of its friends. This paper does not give the reasons upon which it founds its opinion as to the cause of the increase. We think the larger production was mainly due to the advance in price of corn on all markets. No prizes of any consequence have been offered in Virginia for the past five years, yet there has been considerable increase in corn production, the same cause operating here. The whole idea of the

present offer seems to me to be a misconception as to the object in offering prizes. The fundamental idea is to encourage the farmers of the State to raise more corn per acre. Under the conditions of the offer, type is the only requirement, and any farmer can grow enough corn on the tenth of an acre to select from. There is no inducement here to increase the yield per acre or add to the acreage of his crop. I very much doubt if these cash prizes will add a thousand bushels to the corn crop in Virginia this year. But it is to be hoped this offer will bear fruit because if a good many of our farmers succeed in obtaining a better grade of seed corn it ought to result in an increased yield in the future. But our experience has been that good seed is not more than one-fourth of the requirement. The first thing required is rich, suitable land; the seed must be planted at the right time in a seed bed properly prepared, and the cultivation must be such as to conserve the moisture and keep down all weeds and grass.

Every intelligent farmer knows that to make a maximum yield, corn must be planted not less than two feet apart in the rows and the rows not more than three and a half feet apart. But this way of raising corn will not make the best type of ear or grain, as the plants being so crowded will not make their best development and the conformation of the ear will be faulty and grain imperfect. The best type of ear and developed grain will be found where the stalks are more than two feet apart and the rows over three and a half feet apart. My best ears were grown in rows four feet apart and stalks three feet apart in the row.

Let every farmer have a separate plot of ground for seed. The present offer is not broad enough. It should include acreage as well as type. This matter of increasing corn production in Virginia is of vital importance to our people, so much so that it ought to be taken up by the next legislature and ten thousand dollars be set aside to be awarded as corn prizes; this amount should be appropriated for five consecutive years, the legislature fixing the different awards and naming a Board to pass upon the productions of the contestants. The Commissioner of Agriculture ought to be a member of the Board. There should be awarded twenty-two prizes altogether. Twenty of these for greater acre production and the remaining two for type and conformation. Let \$800 be given to the farmer who produces the greatest number of white, merchantable bushels of corn on ten acres of land. And smaller amounts, respectively, to the farmer who raises the most white corn on nine acres, and so on, consecutively, to the farmer who only grows the greatest number of bushels on an acre. Then establish similar classes for the growers of yellow corn; but let the awards be much less than for corresponding classes of white corn. Prize No. 21 should be given to the farmer who offers the best twenty-four ears of white corn; and the last prize given to the farmer who produces the best twenty-four ears of yellow corn. The winning of one prize to disqualify a competitor from further winning. Of course, all corn to be raised in Virginia and in the year specified.

Now, if the next legislature does take up this matter and make the appropriation along the lines indicated,

we may look for a large increase of corn per acre all over the State in the next few years. The basic principles of corn production have been emphasized from time to time by the Southern Planter and the readers of this good journal are familiar with the essentials as they have been promulgated; to-wit: Keep all the stock your farm will carry; raise leguminous crops, such as cowpeas, clover, alfalfa and soja beans then observe a proper rotation of crops and, with proper cultivation, the outcome will be certain.

E. W. ARMISTEAD.

Harrisonburg, Va.

THE TAX QUESTION.

Editor Southern Planter:

To my mind, taxing farm buildings and improvements is entirely wrong.

If a man remodels his out-buildings, puts a veranda or a balcony to his house, gives it a couple of coats of paint, lays out a lawn, sets out a nice evergreen hedge and ornamental trees, makes a driveway, puts up new fences and gates, what is the result? Along comes the assessor with a clean, white pad and a sharp pointed pencil and puts up the value of the house \$500 or a \$1 000 and the land \$500 more. Although it is the same old farm with a new dress bought with the proceeds of the farm earned by labor thereon. Why, then, should a farmer or any other man be taxed for such improvements? The public authorities or his neighbors did not contribute one cent to these improvements, yet all of these add to the total wealth of that section of the country.

The present mode of assessing and collecting taxes must have surely been devised in the dark ages, and we should look for something better. It discourages improvements and so farmers are afraid to have beautiful lawns, expensive front fences and gates, because they know their taxes will be increased in consequence.

If, however, they were exempt from taxation, you would probably see farmers everywhere tearing down old, dilapidated fences and gates and renewing them; new buildings would be erected and old ones repaired and improvements of all kinds would be introduced so that farms would generally take on a more attractive appearance.

If we would assess only the land for what it is worth, no matter where it is situated, I believe you would see more improved farms and a better class of buildings. If we would arrange our tax laws so that all of the burden of taxation fell on the value of the land only we would make the path of the farmer easier to tread.

Farmers as a usual rule are owners of land in large areas, but are not as a usual rule owners of land that is very valuable. A single acre of land, on the Island of Manhattan, in the year of 1908, sold for \$7,500,000. Did you ever meet a farmer who owned 160 acres of such land?

The proposition to tax only the value of land is the greatest boon that has ever been submitted to the farmers for consideration. And yet, most of the men who advocate the taxation of land values and the exemption of improvements from taxation are not farmers. Most of them live in the cities.

The statement has been made time and time again that the farmer is the heaviest taxed man in the country. And

it's true. Is it not time that farmers consider what is to their best interest? If this simple change is made in our tax laws the greatest burden of taxation will fall where the greatest land values exist, in the cities and towns, while the smallest burden will fall where the smallest land values exist, in the farming sections of our country.

CHAS. D. RYAN.

Philadelphia, Pa.

Several years ago we wrote a series of articles in The Planter, exposing the absurdity and injustice of the present system of taxation in this State and the country generally. Amongst all the civilized nations this is the only one taxing movable, personal property. A farmer in England can keep as much live stock and own as many implements and other requirements for the working of his farm as he pleases, and can provide his home with all the conveniences in the way of furniture, pianos, watches, clocks, and sewing machines as he wishes without paying a dollar of taxation thereon. The system of taxation in force is the cause largely of our uninviting homes and farms and offers a premium upon lying in making out the tax returns which few are able to resist. Every tax return is made with a mental reservation as to its truth. Practically, in taxing the people of the State, we have made no advance over the system invented by the first settlers to raise money for public purposes. Surely, it is time to change this. In our opinion, the ideal system is to require a man to pay a tax on what profit he makes and not on what he is compelled to have to make a living. There is no injustice in requiring a man to pay a tax on the profit he makes, as he is enabled to do this by the protection which the law affords him in the conduct of his business. This is practically what is done by the English income tax law. All property and the earnings of the owner are taxed under that law and incomes below a certain limit sufficient to maintain the maker are exempt. It is said that the income tax is an inquisitorial law and alien to the feelings of American people, but we have always failed to see the distinction in this respect between requiring a man to state his income and requiring him to tell how many watches, clocks, pianos, sewing machines, etc., he has, and how much they and all his other personal property are worth. Whilst we think that there is much to be said in favor of taxing land values, yet we cannot see our way to limiting taxes only to this asset. There are thousands of men and women too in this country who own no land, yet have enormous incomes, and these should be required to bear their share of the burden of taxation, which they now escape. What a pity it is that candidates for public office should not discuss such subjects as these in their addresses rather than the "wet and dry problems, which seem to be all they are able to find of interest except, may be, the records of each other. These are matters of small importance compared with the taxation problem and could well be left out of consideration without any one being the worse. Sumptuary laws have always been a failure everywhere, and always will be. A man is going to eat, drink and wear what he likes and can afford to buy, whatever the law may say. Grandmotherly legislation for grown people is folly.—Ed.

THE COLLIE DOG.

A farm without a good dog on it is as desolate as a home without a child, and I believe there is no other dog that can begin to compare with the collie as the most efficient helpmeet on the farm.

Carefully bred for hundreds of years by the shepherds of England and Scotland, continually associated from puppyhood to death with the Scotch lads and lassies, assisting them in the management of the cattle and sheep in the highlands and valleys of that country, which has produced a race of people superior to most other nations and inferior to none. With an environment of this kind, I say, it is not strange that the collie has developed into the most intelligent, faithful, industrious and affectionate human companion that we have.

Up in Montana and the Canadian Northwest, I have frequently seen working collies on the large sheep and cattle ranches of that section that could not be purchased for one hundred and fifty to two hundred dollars, and it is not unusual to find them valued up to five hundred and more. The stock farmers who have herds of thousands of cattle grazing on the ranges realize the value of these dogs and pay well for a good one. Hardly a winter passes that from out of this great "Northwest" do not come stories of the intelligence, faithfulness and endurance of the shepherd's only companion, his collie dog.

Perhaps the herder has died in his little cabin or tent and day after day the dog has herded the sheep, putting them into corral at night and taking them out to graze in the early morning just as he did before his master passed away. Perhaps both master and dog have lost their sheep in a blinding, freezing storm and they themselves, exhausted with futile efforts to regain the camp, sink down in the snowdrift and, when rescued later, the dog is found lying on his master and trying in every way



FEEDING TIME.

telligent, industrious, affectionate and ever faithful unto death.

These dogs come by their instincts and disposition naturally, for they have been reared for centuries in the hill country of England, Scotland and Wales and from puppyhood are largely hand raised by the Scotch lassies and frequently divided up among the sheep and allowed to suckle along with the lamb and thus instilling an instinct that has made them the natural protectors of dumb animals and children.

Driving is as natural to a Collie as swimming is to a Spaniel, but he should be properly guided in this instinct and training can commence when he is four or five months old. Cleanliness and tractability should be taught from earliest puppyhood and the extremely sensitive nature of these dogs absolutely prohibits all roughness or punishment of them if you would get satisfactory results. In many ways man's superior intellect can shape the future usefulness of a collie. For instance, a dog should always drive from behind and not run to an animal's head and bark at or bite the cow. A good way is to take the puppy in your arms, run after the cows a little so they start on a trot, then let the puppy down and he will think he is making the cattle move and will gradually learn to work behind.

F. H. LaBAUME,

Ivor, Va.

Ag. & Ind. Agent, N. & W. R. R.

Collies will be found advertised in our columns.—Ed.



MR. LABAUME AND COLLIES ON N. & W. RY. FARM.

to shield him from the icy blast. It is always the same old story of the collie dog—"the brain of a man, the heart of a woman, the gentleness of a child." Always in-

THE TURKEY BUZZARD.

Editor Southern Planter:

I wish to endorse the letter of Mr. R. K. Anderson in your April issue advocating the outlawing of the turkey buzzard, and your editorial comment. You have presented strongly the sanitary reasons for removing the legal protection of the buzzard and encouraging his extermination. I wish to direct attention to an additional reason.

On a large plantation where sows are allowed to farrow in the pasture, I have known buzzards to destroy and maim the pigs before the minder could get to them. Like vultures, they even wound the sows. Similarly with young lambs. They are a serious menace to the raising of small live stock on large plantations.

Richland Co. S. C.

JOHN J. McMAHAN.

THE COMMISSIONER OF AGRICULTURE AND PARTY POLITICS.

Editor Southern Planter:

In your June issue there are two articles concerning the election of a Commissioner of Agriculture. It is not my purpose to criticize. I only wish to suggest an easy way to provide for his election without compelling him to be an adherent of some political party. As the situation now stands, it is almost impossible to elect any State officer who does not announce himself as a party candidate. Let us see if there is a remedy for this unfortunate state of political affairs.

Much has been said and written about the best means of nominating candidates for election to office. Whether a primary or a convention is the better way depends upon circumstances. As a rule, however, I favor the primary. But the usual primary system needs to be amended. Of course, nothing can be done to improve the situation before the coming fall election. But, for nominating candidates for election after this year, I suggest the following:

1. Let our next legislature enact a general primary election law requiring all candidates to be nominated by a primary held four weeks before the regular election.

2. The primary should be conducted by regular election officers, and, as far as practicable, according to the regular election laws.

3. The primary ballot should clearly indicate the political party affiliations of every candidate for nomination except candidates for nomination for election to the office of Commissioner of Agriculture. Candidates for nomination for the office of Superintendent of Public Instruction might also be excepted from indicating their party affiliations.

4. The two candidates for nomination for the same office who receive the greatest number of votes in the primary should be the only candidates for said office at the regular election; provided, however, that the same political party shall have only one candidate for the same office, except when the combined primary vote of two members of the same party shall exceed half the total vote cast at such primary.

Under this plan, there would be only two candidates for each office to be filled by election, thus securing the election of one by a majority of all the votes cast in the regular election. All the expenses of the primary would be borne by the public and not by assessments upon each individual candidate for nomination. All parties would have an equal chance. All qualified voters could have a voice in nominating candidates without being morally bound to support a particular nominee at the regular election.

Under present plans for making nominations, whether by primary or by convention, large numbers of conscientious citizens refrain from taking an active part because they do not wish to tie their hands before the final test at the regular election. And yet, by not taking an active part in nominations they often practically allow others to tie their hands for them. After nominations are made those who stayed at home often have no choice at the regular election; especially in sections where one political party is largely in the majority. That system of

nomination which encourages good citizens to take an active part helps to improve the government.

FARMER.

FARM RENTING IN VIRGINIA.

In your May issue Mr. D. L. Davidson, of Red River, Oregon, asks for information in regard to renting farms in Virginia. I can give him my plan—one that I adopted before moving to this State from the West. I did not make any inquiry before renting the farm out, but wrote up an agreement with the following terms: I furnish all the commercial fertilizer; my renter furnishes all seed, wheat and teams and tools and does all the work. The stock we furnish in equal parts and keep all stock in partnership, except horses, and, when sold, we divide the cash equally. We feed the stock out of the partnership grain. We divide the wheat when threshed. I furnish all timothy and clover seed.

Now, Mr. D. will want to know what interest such a partnership will pay the owner. It has paid me 8 per cent. on the investment for seven years. My farm is cut up in small fields, nearly all pig tight.

As to a system, that is one trouble here in Virginia, there is no system. I see some good farms and good renters on them, but the renters' hands are tied. He cannot pasture hogs or sheep because of no fences that will turn either. He must keep his hogs in the pen until killing time, and if he comes out even on the hog deal he can count himself lucky.

S. A. SAUM.

Shenandoah Co., Va.

I am taking five agricultural papers; I must say I would rather drop the other four than to drop the Southern Planter.

S.

THE CORN PRIZES.

In our last issue we published an article from Mr. S. B. Woods on this subject. Our printer made an unfortunate error therein in printing the word "tons" instead of bushels, in speaking of a yield per acre. Mr. Woods writes us that his attention has been called to the error by several parties who are inclined to joke him thereon as drawing the "long bow." Those who know Mr. Woods know that he would not be guilty of such a thing and that the word was simply a printer's error, not corrected by the proof-reader. The word was written "bus.," which, it will be seen, could easily be read "tons" by a compositor not familiar with the subject. We regret the error. We know our friend will forgive us, as he has had experience with printers and their wonderful blunders.

THE FARMVILLE CREAMERY.

We are very glad to learn that the creamery recently established at Farmville, Va., has gotten quite an auspicious start. A goodly number of cows has been secured by patrons, and still others will be gotten, and the outlook is that in the very near future the creamery will be running up to its full capacity. We also learned that an expert butter maker has been secured, and an excellent article in the shape of creamery butter may be expected at an early date.

THE Southern Planter

PUBLISHED BY
THE SOUTHERN PLANTER PUBLISHING CO.,
RICHMOND, VA.
ISSUED ON 1ST OF EACH MONTH.

J. F. JACKSON,
Editor.

B. MORGAN SHEPHERD,
Business Manager.

B. W. RHOADS,
Western Representative, 844 Tribune
Building, Chicago, Ill.

MANCHESTER OFFICE,
W. J. Carter, 1102 Hull Street.

ADVERTISING RATES
Will be furnished on application.

The SOUTHERN PLANTER is mailed to subscribers in the United States, Mexico and island possessions at 50 cents per annum; all foreign countries, \$1; the city of Richmond and Canada, 75 cents.

REMITTANCES should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

SUBSCRIBERS failing to receive their paper promptly and regularly will confer a favor by reporting the fact at once.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. Rejected matter will be returned on receipt of postage.

No anonymous communications or enquiries will receive attention. Address THE SOUTHERN PLANTER, RICHMOND, VA.

ENTERED AT THE POST-OFFICE AT RICHMOND, VA., AS SECOND-CLASS MAIL MATTER.

PUBLISHERS' NOTES.

TO ADVERTISERS.

Please bear in mind that we must have all copy or instructions for advertisements by the 25th of each month without fail. Every month we are compelled to omit advertising in large volumes for the simple reason that copy does not reach us in time.

A NEAT BINDER.

If you will send thirty cents to our business office, we will send you a neat binder made of substantial Bristol board, in which you can preserve an entire volume of the Southern Planter. Many of our readers find this a useful device, as they always save their copies for reference.

WOOD'S SEEDS—Best quality always.

Sow Crimson Clover

at the last working of corn and other cultivated crops.

It is the King of Soil Improvers,

increasing the productiveness of the land to a wonderful extent wherever it is sown.

It also makes splendid fall, winter and spring grazing, the earliest green feed or a good hay crop, and the land can be plowed and planted in corn or other crops the same season.

Land planted to corn that is sown in Crimson Clover at the last working yields constantly increasing crops of corn each successive year.

Write for price, and WOOD'S CROP SPECIAL, giving full information about Crimson Clover and other Seeds.

T. W. WOOD & SONS, Seedsmen,
Richmond, Virginia.

A FARMER'S ACCOUNT BOOK.

We can furnish a very simple and complete account book for farmers' use for 50 cents, postpaid; or we will give a copy to every subscriber who will remit us \$1.00 for a three year subscription and 10 cents to cover mailing.

This book contains records for labor, planting, buying, selling, breeding and inventory and will last the average farmer for two or three year.

In the back of the book are gestation tables, rules for computing contents of corn cribs, hay stacks, etc.

THE ROSS SILOS AND ENSILAGE MACHINERY.

We are in receipt of catalogues of the E. W. Ross Co., Springfield, O. describing in detail its silo and silo filling machinery. Established in 1850, this company should certainly know its business, and if we are to judge it by the quality of its goods and advertising literature, we should say that it did. It makes both silos and ensilage cutters in endless variety and sizes to suit practically everybody. If you are at all interested, send for these catalogues. Their advertisement will be found in another column.

\$1500 to \$5000 a Year



has been made by hundreds of people operating the

"American" Drilling Machines

There is no business in the world where a few hundred dollars investment, combined with a little energy, will obtain a competency so surely or quickly as the operation of an "American" Well Machine. 40 years' experience and 59 regular styles and sizes make them the world's standard.

Complete New Catalog **FREE**.
The American Well Works
Gen'l Office & Works, Aurora, Ill.
First Nat. Bank Bldg. Chicago.
Sydnor Pump Company, Richmond, Virginia.

RAFFIA

Red Star and Arrow Brands

Bale lots of 225 lbs. each.

We are direct importers—stock always on hand. Write for special prices, stating quantity required. Sample sent on request.

McHUTHISON & COMPANY,

Raffia Importers,

17 Murray St.,

New York.

BANK OF RICHMOND,

Main and Ninth Streets.

CAPITAL, \$1,000,000 00.

SURPLUS, \$475,000 00.

Special attention paid to out-of-town accounts. Correspondence invited.

Three per cent. interest Allowed in Savings Department.

Compounded Semi-Annually.

Save Roof Money

Don't judge roofing by the way it looks. There are more than 300 substitutes for the genuine Ruberoid. They have names which sound like Ruberoid. *Before they are laid they look like Ruberoid.*

But a single summer tells the difference. For there is no rubber in Ruberoid. It is not a tar roofing. Not an asphalt roofing. Not an asbestos roofing.

Its wonderful properties are due to our exclusive product—Ruberoid gum.

This gum is flexible like new rubber—but it permanently withstands the heat, the cold, the rain, the snow—which rubber will not do.

It is so nearly fireproof that hot coals thrown on a roof of Ruberoid set fire neither to the roofing, nor to the timbers underneath.

RUBEROID

(REGISTERED IN U. S. PATENT OFFICE)

Ruberoid roofing was the first ready roofing by several years.

Asphalt roofings and the so-called "rubber" and "asbestos" roofings have come—and gone—and been replaced. While the first roofs of Ruberoid—put on more than seven years ago—look still good for many more years of service.

Ruberoid roofing is also made in colors. These colors—Red, Brown, Green—are a part of the roofing. They do not wear off or fade.

Get This Free Book

Before deciding on *any* roofing for *any* purpose, get our free book, which gives the results of our tests with all kinds of roofings—shingle, tar, tin, asphalt and ready roofings.

This book is a gold mine of practical roofing information, and will be sent free to all who address Department 300 The Standard Paint Company, 100 William Street, New York.

Genasco Ready Roofing

Trinidad Lake Asphalt Roofing. Does away with leaks and repairs. Guaranteed.

Write for Good Roof Guide Book and samples.

THE BARBER ASPHALT PAVING COMPANY

Largest producers of asphalt and largest manufacturers of ready roofing in the world.

PHILADELPHIA

New York San Francisco Chicago

MONTROSS METAL SHINGLES



OCTAGON SHINGLE

are no experiment Made since 1889, and give satisfaction to all users. Offer you the ideal roofing. Won't crack or scale. Fire, storm and lightning proof. Light, attractive, easily laid. Last a lifetime. Inexpensive. Write us for Catalogue.

MONTROSS METAL SHINGLE CO.

113 Erie St., Camden, N. J.

Lowest Factory Price—Freight Prepaid

Write immediately for free samples and booklet telling about the most remarkable offer ever made on old reliable high quality

BREESE BROS. RUBBER ROOFING

Guaranteed, waterproof, fire resisting and durable. Delay may cost you money. Write now.

The Breese Bros. Company Roofing Dept. 64, Cincinnati, O.



WITH THE ADVERTISERS.

The Medical College of Virginia announces that its seventy-second session begins on September 14th

The Alma Manufacturing Co. resumes its advertising of the McVick-engine Engine this month.

Shropshire sheep are offered by H. R. Graham, Chestertown, Md.

The Silver Manufacturing Co. is advertising its Ohio Ensilage Cutters again this month. Look up the advertisement.

The Farmers Ground Phosphate Rock Co. has an advertisement on another page, to which attention is invited.

The Virginia Land Agency is a new advertiser this month.

H. A. S. Hamilton & Sons are advertising pure bred sheep of different breeds in another column.

C. E. Jones is offering some Dorsets at reasonable prices.

The Lynnwood Stock Farm is offering pure bred Percherons, Shorthorns and Berkshires.

Desirable farms between Richmond and Washington are offered by Frank H. Cox.

Look up the advertisement of the Union Bank of Richmond.

The Smith Shock Binder Co. is advertising its very handy device in this issue.

W. Grossman & Son are advertising seasonal seeds in another column.

HOW TO SAVE \$75

On five cows in ninety days, in milk alone, and have them protected from flies, lice, mosquitoes, ticks, warbles, is fully explained in a booklet being mailed to any subscriber that will write to the Ripley Manufacturing Co., Department V., Grafton, Ill. It is cruel to allow your cows, horses and poultry to suffer from the torments of flies, lice and other insects, when a small investment will mean the saving of many a dollar to you; at the same time your cows will give 25 to 50 per cent. more milk than cows that are left to fight flies all day. See the ad. in this issue of the above firm, and send and get some of this wonderful money-saving preparation. No flies, lice, mosquitoes or other insects will exist where it is sprayed. It is harmless to man or beast, and not poisonous, and is guaranteed to be as represented or money is refunded.

Campbell Co., Va., April 15 '09.

How in the world you can publish such a valuable magazine as the Southern Planter for the price is more than I can comprehend.

J. M. B. LEWIS.

Backed by 50 Years of Steady Improvement

Dederick Presses are backed by more than fifty years of careful experimenting and improving. They hold the world's records for neat, rapid and thorough work, and have always come out winners in contests with other presses.

DEDERICK'S

Baling Presses

are strong, substantial, and durable—made in a modern factory by men who are press experts. They're the world's best, as well as *first*, Presses—the farmer's wisest choice. Our free Catalogue is full of facts about Presses and baling. Write for a copy—today.

P. K. DEDERICK'S SONS,
55 TIVOLI ST.,
ALBANY, N. Y.



Self-Feed Eli Baling 3-Stroke Eli Press

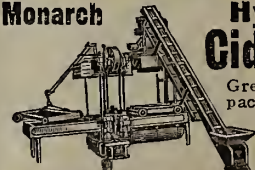
Latest addition to the great "Eli" family. Three strokes with automatic self-feed makes the gang hustle. Built on lines that make horse presses really valuable. Greatest leverage when pressure is hardest. Low Step-over, Full Circle, Block Signals, etc. A little giant in strength. We've always led as hay-press builders—18 different styles, horse and belt powers. All in one catalog and it's free. Write for it. Collins Plow Co., 1185 Hampshire St., Quincy, Ill.



Bale at Least Cost

Our Daisy SELF-THREADING, self-feeding one-horse hay press only one on which one man can do all the work. First successful self-threading device, automatic condenser increases results. Open side hopper. Free trial. Write today for Baler Book and prices. GEO. ETEL CO., Quincy, Ill.

Monarch



Hydraulic Cider Press

Great strength and capacity; all sizes; also gasoline engines, steam engines, sawmills, threshers. Catalog free.

Monarch Machinery Co., 510 Cortlandt Bldg., New York



KNIGHT Saw Mills Nine Sizes

"If it's a Knight, it's right." Modern build and equipment—mills that cut 3,000 to 50,000 ft. a day. Edgers, swing saws, dogs, self-feed rip saws, etc. Free circular. Address The KNIGHT Mfg. Co., 1934 S. Market St., Canton, O.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

"OHIO" SILAGE CUTTERS

What do you know about Silage Cutters?
Which do you think is the best?
"Why do you think so?"
"Ohio" Silage Cutters give absolutely the best results. We believe we can prove this to you. Will you give us the chance?

Our big new "Ohio" book—the finest ever printed—will post you on Silage Cutter essentials. It's a beauty—104 pages—with 56 pages of photographs of "Ohio" Cutters at work everywhere. It will make you sure about

"Ohio" Blower Silage Cutters (6 Sizes—Cut 3 to 30 Tons an Hour—5 to 16 H.P.)

about their dependability, capacity, durability and construction, power requirements, evenness and quality of the cut product, high class of users, prices, etc. Send for it today. Mailed free.

The Silver Mfg. Co.

Salem, Ohio

Modern Silage Methods,
224 pages, 10c coin or stamps.



SILO FILLERS

Whirlwind with wind elevators for any power from 4 to 12 H.P. will Cut or Shred green or dry fodder and elevate to any height. Get Free catalogue



Wilder-Strong Implement Co.
Box 82 Monroe, Michigan.

SILOS

The "PHILADELPHIA," Has the best on earth. Has the longest test and most in use. Continuous opening from top to bottom.

THE ONLY OPENING ROOF MADE.

TANK and TOWERS

Ask for prices and new catalogue.
E. F. SCHLICHTER CO.,
to South Eighteenth St.,
Philadelphia, Pa.

SILOS

that make and keep real ensilage; that have the utmost strength, convenience, and durability; that are used by the United States Government. Send for free catalogue.

HARDER MFG. COMPANY,
Box 32, Cobleskill, N. Y.



BRIEF CORRESPONDENCE.

Hamilton, Va.

Editor Southern Planter:—I enclose you a little item clipped from our town paper on the O. I. C. sow, "Topsy," I own. "Topsy" farrowed six litters of pigs as follows: First, 10; second, 10; third, 13; fourth, 13; fifth, 17; sixth, 14—total, 77. By feeding some of them, 66 of the number reached maturity. Mr. Schooley has invested no little cash in the improvement of his stock, and breeders should visit his farm or correspond with him before purchasing." In the April issue of your journal I advertised her pigs. Was much pleased with that ad., for, before another issue, it had brought me customers to more than sell all the pigs I had. Have heard from all of my customers but one, and they were pleased with my stock. I guess he will have no kick, for a pig 92 days old weighing 85 pounds should have some respect. Keep good stock and advertise in the Southern Planter and you will make no mistake.

G. T. SCHOOLEY.

June 15, 1909.

Kansas Dept. of Agriculture,
Topeka, Kan.

J. F. Jackson, Esq., Editor Southern Planter:—I am greatly interested in the splendid work you are doing to acquaint your readers with the excellence and cultivation of alfalfa. Surely, you cannot render them a greater service, and they will always be indebted to you and Prof. Massey for your persistency in turning their faces to the light.

It would be a Godsend to the farmers of the South if a half million of them would subscribe for your magazine, and follow the advice it gives them from month to month.

F. D. COBURN, Secy.

June 8, 1909.

Suffolk, Va.

Editor Southern Planter:—The few subscribers secured in the spring have been very gratifying to me. I'll give you the history of Just "one." He secured one of Mr. Davis' horses advertised in the Southern Planter, and was so well pleased that two of his friends each purchased a horse. He loaned the paper to a brother-in-law, and he purchased a cow and one of his friends purchased some hogs. Besides this, they are delighted with its valuable contents, and said his wife lived by the chicken pages. I think treats are on Mr. Davis, the horseman.

W. T. BAILEY.

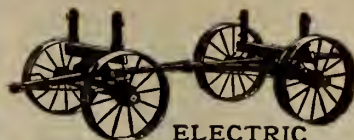
June 9, 1909.

Roanoke Co., Va., March 24, '09.

It gives me pleasure to speak for the Southern Planter whenever the opportunity presents itself.

ALLEN W. WILBOURN.

THIS IS IT



ELECTRIC

The wagon you are looking for; the wagon folks are all talking about. By every test it is the best—no living man can build a better. Of course you have guessed that it's the

ELECTRIC HANDY WAGON

Low steel wheels; wide tires and durability and good service written all over it. Don't be talked into buying an inferior. Get the wagon that lasts. Or we'll sell you a set of Electric Steel Wheels and make your old wagon new at slight expense. Spokes united with the hub; absolutely impossible to work loose. Sold on a money-back guarantee. Their saving in time, labor, horse flesh and repair bills will pay for them in a single year. More than a million and a quarter in use. All we ask is a chance to tell you more about them. Drop us a line, we'll do the rest. Catalog free.

ELECTRIC WHEEL CO.,
Box 146 Quincy, Ill.

PUMPS WATER

Day and Night Automatically

Low in first cost, easy to install, no expense to operate, any capacity desired for Country Homes, Farms, Dairies, Gardens, Irrigation, Town Plants, Railroad Tanks, etc.

Rife Hydraulic Rams

Raise water 50 feet for every foot of fall. Satisfaction Guaranteed. Over 7,000 in use. If there is a stream, spring or pond within a mile—

Write For Free Plans and Book.

Get our Free Trial Offer.

Rife Engine Co.
2113 Trinity Bldg.
NEW YORK

\$100 that the 20th CENTURY FARM GATE



is the most simple and practical farm gate ever produced. Do you want to make money?

H. M. MYERS, Lodi, Ohio.
Sole owner Pats. U. S. and Canada.

ALWAYS IN ORDER



MANLOVE Automatic Gate

Saves time, adds to value, safety, beauty and pleasure of home.

MANLOVE GATE CO., 272 E. Huron St., CHICAGO, ILLS.



FENCE STRONGEST MADE.

en-tight. Sold to the user at Wholesale Prices. We Pay Freight. Catalogue free. COILED SPRING FENCE CO., Box 53 Winchester, Indiana.

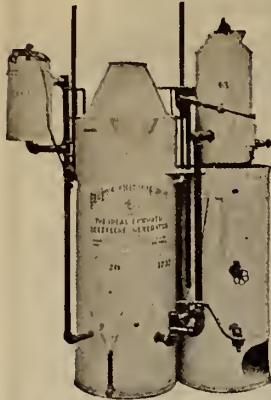


WHEELS, FREIGHT PAID \$8.75

for 4 Buggy Wheels, Steel Tires. With Rubber Tires, \$15.20. 1 mfg. wheels 1/2 to 4 in. tread. Buggy Tops \$5.60, Shafts \$2.00. Top Buggies \$23; Harness, \$5. Learn how to buy direct. Catalogue free. Repair Wheels, \$5.00. Wagon Umbrella FREE. W. V. 8008, Cleonsall, O.

Always mention The Southern Planter when writing advertisers.

See That Generator?



**Get
Good
Light
For
The
Price
Of
Bad.**

Be able to tell your blue dress from black. See while you are trying, without straining the eyes. No smoke, no globes to break or lamps to clean, or fall or explode; no danger of killing you while you sleep. Less work per month than one lamp. Costs less than Kerosene, and always ready at all times. We will send you one ready to put up. Write us to-day.
IDEAL EPWORTH ACETYLENE CO.,
620 Elder St., JOHNSTOWN, PA.

BARGAINS IN

2nd Hand Machinery.

For Sale by

The Watt Plow Co.,

Richmond, Va.

One 8 H.P. Peerless Geiser Engine and Boiler, on steel wheels, used two months, and as good as new.

One 8 H.P. Frick Eclipse Boiler and Engine, on wheels, in first-class order; just overhauled.

One 12 H.P. Ames Engine and Boiler, on wheels, just overhauled in our shop, and in first-class shape.

One 25 H.P. detached Erle Engine, without boiler.

One 20 H.P. Peerless (Geiser) Engine and Boiler, on steel wheels, used eighteen months, and in first-class condition in every way.

One American Combined Lath-Mill and Bolter, with two inserted Tooth-Lath Saws and one inserted Tooth Bolting Saw.

One 20-inch Sweepstakes Planer, Matcher and Molder complete, with countershaft and pulleys.

One 12 H.P. Second-hand Lightning Balance Gasoline Engines, mounted, manufactured by the Kansas City Hay Press Co.

THE WATT PLOW CO.,

1426 E. Main St., Richmond, Va.

The "MONARCH"

STEEL STUMP PULLER.



The best and simplest on earth. No cost to you, except freight, until it is set up and giving satisfaction. Nine years experience in this business. Write for catalogue and prices.

JOS. W. RITCHIE, Agent,
Route 1, Grottoes, Va.

CATALOGUES, PAMPHLETS, ETC.

Northern Virginia Farms. Catalogue issued by A. H. Buell, Real Estate Broker, Herndon, Va.

De Kalb Fence Co., De Kalb, Ill. Wire fencing for all purposes.

Agricultural Implements. Catalogue No. 36, The Wilder-Strong Implement Co., Monroe, Mich.

Veterinary Notes. Monthly publication issued by Parke, Davis & Co., Detroit, Mich.

Concrete Silos. The Virginia Portland Cement Co., Fordwick, Va.

Gas and Gasoline Engines. The Rockford Engine Works, Rockford, Engine Works, Rockford, Ill.

The Story of Holstein Milk, issued by the Holstein-Friesian Association, Brattleboro, Vt.

Iron Age News. The quarterly publication of the Bateman Manufacturing Co., Grenloch, N. J., in the interest of Iron Age tools.

Department of Pharmacy. Bulletin of the University College of Medicine, Richmond, Va.

Natural Fine-Ground Rock Phosphate, presented by the Farmers' Ground Rock Phosphate Co., Mt. Pleasant, Tenn.

Sunrise in the South. By R. H. Edmonds, editor of Manufacturers Record, and a reprint from that publication.

The above catalogues and pamphlets will be sent free to all applicants, and will be found to be very interesting on the subjects which they treat. Write to addresses given above.

PERUVIAN GUANO.

Attention is invited to the advertisement of the Peruvian Guano Corporation, to be found on another page. Many of our older readers will doubtless hail with delight, the announcement that the genuine old fashioned guano can now be had in any quantities, since it has been a number of years since their "first love" has been on the market. Many are the crops upon which it can be used to advantage, both as a fertilizer or base for home-mixing. We are informed that shipments arrive in this country regularly, and the guano is sold strictly on analysis.

Mrs. Jennie E. Wilson has just sold her farm of 821-2 acres, near Sterling, Va., to Mr. S. M. Newman, of Gordonsville, Va., through A. H. Buell, Real Estate Agent, Herndon, Va. Half the crops go with the farm.

Roane Co., Tenn., March 7, '09.

The Southern Planter is the best paper I know of and it contains the best reading and most reliable advertising.

JNO. W. SNOW.

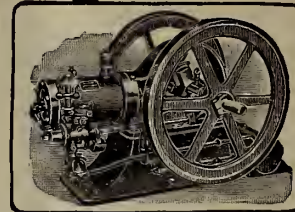
CHEAPER FARM POWER

For the price of a good horse you can buy an ideal farm engine that will operate Feed Grinder, Cutter, Saw, Pump, Churn, Separator, Washing Machine and other machines to which belt can be attached. It eats no corn, does not get sick or die, can be moved whenever you wish, is always ready and eager to work.

A Star Gasoline Engine will cut out drudgery, save the tired back, and make life a pleasure. Made with standard tank, pump cooled, or hopper cooled.

Send for prices and illustrations and learn why the "Star" is a money-maker and time saver.

The Star Manufacturing Co.,
Box 516, New Lexington, Ohio.



**The
STAR
A Heavy,
Standard
High-
Grade
Gasoline
Engine**

HARNESS BY MAIL

You can buy custom-made, oak-tanned harness direct from our factory, at wholesale prices. Save the dealers' profits. All our harness guaranteed. Money back if not satisfactory. Write for illustrated Catalogue O. and price list. Every farmer should have this booklet.

THE KING HARNESS COMPANY,
16 Lake St. Owego, Tioga Co., N. Y.

"ROCKFORD"

Rockford Engine Works.
Dept. 36, Rockford, Ill.
The Engine that will please you

Before you contract or buy write for our proposition

Neat-Nobby-Handy.
All Styles 2 to 30 h. p.

"ROCKFORD"

BOILERS AND ENGINES.

16-horse Traction, \$300; 12-horse, \$250; 10-horse, \$200; boilers and engines from 2 to 100 horse, all styles and sizes, new and second hand; 4-horse gasoline engine, \$75; 8-horse \$150; 12-horse, \$200; Saw-Mill, \$135; boilers, tanks and smoke-stacks.

CASEY BOILER WORKS,
Springfield, Ohio.

HARVEY BOLSTER SPRINGS

Soon save their cost. Make every wagon a spring wagon, therefore fruit, vegetables, eggs, etc., bring more money. Ask for special proposition. Harvey Spring Co., 733 17th St., Racine, Wis.

Free Trial To You

PILLING

Cattle Instrument Case
"Easy to Use"—no Veterinary experience necessary. Contains \$3.00 Milk Fever Outfit and eight other "Easy to Use" Cattle Instruments needed by every cow owner. Complete in Oak Case \$10.00, regular value \$15.00, sent prepaid with "Easy to Use" directions on receipt of \$10.00. Send for Free Booklet 213

G. P. PILLING & SON CO., Arch St., Philadelphia, Pa.

Please mention the Southern Planter.



MICA AXLE GREASE

does
good
to a
wagon
axle



Saves
horse power.

Lessens
wagon wear.

YOU can't afford to be
without it.

Your dealer has Mica Axle
Grease. Ask for it.

STANDARD OIL COMPANY,
(INCORPORATED)



COOPER'S TREE SPRAYS

V1-For Trees in Dormant state
V2-For Summer Use
V3-For Leaf-eating Insects

Effective in the highest degree. Are highly Concentrated. Absolutely uniform in strength. Mix instantly with water. One part to 100 parts water. No sediment to clog nozzles. Harmless to the trees and user. Non-poisonous to animals grazing under trees. Invigorates and cleanses the tree. Write for pamphlet of convincing testimony. Wm. Cooper & Nephews, 177 Illinois St., Chicago

KILL SAN JOSE SCALE WITH
GOOD'S CAUSTIC POT- SOAP NO. 3
ASH-WHALE OIL
James Good, 959 N. Front Street,
Philadelphia.

Please mention the Southern Planter.

\$10,000 ORDER.

What is perhaps the largest Chilled plow sale on record in recent years was made by the William J. Oliver Manufacturing Company, on yesterday, when the the Gale-Hooper Company, of Memphis, contracted with the big Knoxville concern, for \$10,000 worth of William J. Oliver plows for immediate delivery. "Made in Knoxville" is the slogan.

Few sales aggregating a larger or as large an amount than this have ever been made by any plow manufacturing establishment, even though in the business for many years, but certainly a sale of this magnitude is the largest ever made by any concern only in the business for the short space of time marking the introduction of the Wm. J. Oliver improved chilled plow," says Mr. Oliver. "In the implement world it is regarded as truly remarkable, inasmuch as the plow is only in its infancy. A Sentinel reporter called on Mr. Oliver in order to learn, if possible, upon what especial feature is predicated this extraordinary popularity of a plow comparatively unknown. The reporter found Mr. Oliver in his private office, flanked by his special agent in Kentucky, Will Ross, of the Ross Seed Company, of Louisville, and George S. Hooper, managing partner of the Memphis concern contracting the sale. The reporter's question was referred to Mr. Ross for a reply. Mr. Oliver explaining that Mr. Ross has had more experience with more different makes of chilled plows than any other man in the South to-day. Mr. Ross, without hesitation, replied:

"Well, that is a very easy question to answer. The model used in the Wm. J. Oliver plow is the one which years of service in the field has demonstrated to be the most efficient. Now, when you strengthen in any article those features which in other articles, are weak and, at the same time, improve its construction by simplifying it where others are complicated, you are getting pretty close to perfection in any line. Such is true of the Wm. J. Oliver plow: we have the combined good points of all other chilled plows, our pattern representing, as it does, the crystallization, you might say, of all attempted improvements in chilled plows. Briefly, our plow is built with the usual troubles found in other chilled plows eliminated, at the same time retaining all of the good features. Paradoxical though it may sound, the Wm. J. Oliver is totally unlike any other plow, evidence of which is borne out in the fact that every piece entering into its construction is fully patented." Knoxville Sentinel.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

SHIP ME YOUR OLD METALS

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SCRAP IRON

Car Lots a Specialty

50,000 Hides Wanted

Write for Prices.
Satisfaction Guaranteed.
No Commissions.

CHECKS SENT SAME
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Clarence Cosby,

Established 1890.

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Best security. Property insured
\$500,000. Average cost per \$1,000 per
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ties of Chesterfield, Amelia, Powhatan,
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Climate salubrious. Living expenses moderate.
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tions for new Rural Route. Write today.
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**AT "MONTROSE" SHETLAND
STOCK FARM.**

Writing under recent date, from
"Montrose" Shetland Pony Farm, at
Cartersville, on the line of the James
River Division of the C. & O. R. R.,
which is one of the most highly im-
proved sections of Virginia, Dr. Nash
P. Snead states that the present sea-
son has been the most prosperous in
the history of "Montrose" Farm, as
sales have been more frequent, and
the demand most active for breeding
stock, as well as for ponies for chil-
dren and ladies.

Dr. Snead made a direct importa-
tion from the Shetland Islands some
months back, including the fine young
Steinorod, 8340, and some choice
mares, and from this lot, selections
have been made by prominent breed-
ers, while other ponies have passed
to private parties, one of them, an
elegant mare, bred in the purple, go-
ing to Mr. Thomas Purcell, of the
wholesale drug house of Purcell,
Ladd & Co., of Richmond.

No breeding establishment in Vir-
ginia has attained a better reputation
since its formation than the "Mont-
rose" Pony Farm, and its warmest ad-
vocates are patrons whose children
have in use the beautiful and intel-
ligent midgits of the horse world
sent out by Dr. Snead, whose judg-
ment and reliability are matters of
record, especially in the way of Shet-
lands.

Freeport, Minn., May 14, 1909.
**Johnson & Field Mfg. Co., Racine,
Wisconsin:**

I am very well pleased with the mill
and will gladly recommend it to any-
one asking for it. It is too late for
this season to send you a list of
prospective buyers, so I'll put that
off till next fall.

I am confident that I have the best
fanning mill in this vicinity. Several
farmers have seen the mill, and all
agree that they have never seen a
mill that could anywhere's compete
with this one, both for rapid and per-
fect cleaning.

WM. WENKER.

BEST HOG AND CATTLE WASH.

As well as Dip for Sheep is Coop-
er's Liquid Dip. Mixes readily with
hard, brackish, alkali or salty water
and is instantly ready for use, requir-
ing no addition whatever other than
water.

It is three times stronger than or-
dinary liquids, its concentrated form
greatly reducing the expense of
freight, storage, etc

It is much cheaper than the crude
coal-tar, carbolic and tobacco Dips,
and no dearer even than Lime and
Sulphur. Its effect is always benefi-
cial to the animal, its wool or hair.
It does not stain the fleece.

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SHELL LIME

BAGS OR BULK

SPECIAL FINE HYDRATED LIME

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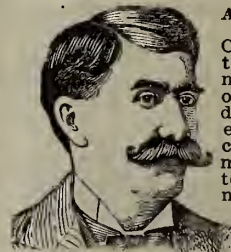
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you unhappy?

HEISKELL'S OINTMENT will cure
such troubles, and when they're cured
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SOAP**, used daily, will keep your skin
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table remedies; re-
moves all symptom
of dropsy in 8 to 20
days; 30 to 60 days
effects permanent
cure. Trial treat-
ment furnished free
to every sufferer;
nothing fairer. For
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monials and
free trial treat-
ment write **DR. H. H. GREEN'S SONS,**
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FUMA

kills Prairie Dogs, Wood-
chucks, Gophers and
Grain Insects. "The wheels
of the Gods grind slow,
but exceedingly small." So the weevil,
but you can stop their grind with

FUMA CARBON BI-SULPHIDE

as others are doing. It fumigates
poultry houses and kills hen lice.

Edward R. Taylor, Penn Yan, N. Y.

Always mention The Southern
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SILAGE FOR SWINE.

The testimony concerning the value of silage as a food for swine is conflicting, both favorable and unfavorable reports being at hand. Many farmers have tried feeding it to their hogs, but without success. On the other hand, a number of hog raisers have had good success with silage, and feed it regularly to their swine. It is possible that the difference in the quality of the silage and of the methods of feeding practiced explain the diversity of opinions formed concerning silage as hog food. According to Professor Cook, Colonel F. D. Curtiss, the great American authority on the swine industry, states that silage is valuable to add to the winter rations of our swine. Mr. J. W. Pierce, of Indiana, writes in regard to silage for hogs: "We have fed our sows, about twenty-five in number, for four winters, equal parts of ensilage and corn meal put into a cooker and brought up to a steaming state. It has proved to be very beneficial to them. It keeps up the flow of milk of the sows that are nursing the young, equal to when they are running on clover. We find, too, when the pigs are farrowed, they become more robust and take to nursing much sooner and better than they did in winters when fed on an exclusively dry diet. We also feed it to our sheep. To sixty head we put out about six bushels of ensilage."

In feeding silage to hogs, care should be taken to feed only very little, a pound or so, at the start, mixing it with corn meal, shorts, or other concentrated feeds. The diet of the hog should be largely made up of easily digested grain food—bulky, coarse foods like silage can only be fed to advantage in small quantities, not to exceed three or four pounds per head per day. As in case of breeding ewes, silage will give good results when fed with care to breed sows, keeping the system in order and producing a good flow of milk.

The foregoing article appears on pages 159 and 160 of "Modern Silage Methods" a 224-page book published by the Silver Manufacturing Company, Salem, Ohio. Every reader of this paper should read their ad. on another page.

Greene Co., Ill, March 4, '09.

I find the Southern Planter growing in size as well as interest. I don't think I fail to read every article it contains. I don't know of any farm paper I like any better, and wish you much success. W. P. STRUNK.

Spottsylvania Co., Va., Mch. 13, '09.

I have been farming for thirty years and have taken the best agricultural papers for that length of time and find the Southern Planter is more practical for Virginia than all the other papers I have taken.

W. M. THORBURN.

The Oldest Established Agency In Northern Virginia Farms-Near-Washington

30. 135-acre dairy farm on railroad, close to station, in Loudoun county; has been a dairy farm for twenty years. The owner, on account of old age, offers to sell everything, including ten good cows, five horses, all farm implements and crops for about \$8,500. There are stanchions for twenty cows in new barn, recently built, according to health regulations. The land is under a high state of cultivation, fine fruit, lasting stream running through place, 7-room house and all necessary outbuildings. The farm and crops, if sold at once, \$7,000. Bargain.

35. 82 acres 1½ miles from Southern Railway, in Loudoun county. Eight acres in timber, good clay soil, springs and streams, good house of 8 rooms, with fruit and shade trees, good barn and necessary outbuildings. A good farm and a bargain. We think \$6,000 will buy it. On easy terms.

41. 264 acres, four miles from station, in Loudoun county. Thirty acres in timber, artesian well, three never-failing springs; 7-room house, barn and outbuildings fair. A fine stock farm, paying 12 per cent. on investment, in high state of cultivation. Price, \$6,500; \$2,500 down, balance to suit.

42. 323 acres, in the best section of Loudoun county, surrounded by high priced and beautiful farms, 7 miles from railroad, one mile from fine pike, one mile from post-office and 2 miles from school; 60 acres in timber, well fenced, and divided into nine fields, with water in every field—large stream through place. Two good houses, one of 7 rooms and the other of 5 rooms; fine tenant house of 4 rooms, 2 new barns, one 35x45, the other 30x40; all necessary outbuildings in good condition. This is a fine blue grass stock farm, and the biggest bargain we have. Price, \$6,500; \$2,000 down, balance to suit.

44. 277 acres in good state of cultivation, just rolling enough; in a good neighborhood, 5 miles from railroad, in Loudoun county. 70 acres in timber, mostly oak; part of it first class; faces on two roads; has been operated as a cattle, sheep and hog farm for 25 years. On account of old age the owner is offering his farm for much less than its true value; is well fenced, two houses in first-class condition, one 10-room house, the other six rooms. Large barn and all necessary outbuildings. Price, \$8,000. One-third down, balance to suit. This is one of the biggest bargains I have.

50. 171½ acres, 3½ miles from railroad, in Loudoun county, in high state of cultivation. Good house, large new barn; half mile from village. This farm is being operated as a stock farm. The owner wishes to sell and buy a smaller place. It is well located and surrounded by highly improved farms and the best of neighbors. Price \$53 per acre, on easy terms. Bargain.

47. 335 acres, a very desirable farm, in good section of upper Loudoun, 7 miles from station; 200 acres in grass, 35 acres timber, soil clay loam, especially adapted to grass; finely watered by springs and running streams; well fenced by wire and rail into convenient fields; choice fruit of all kinds; 14-room dwelling of brick and frame, front of well-shaded lawn; large basement barn and all necessary farm buildings. This will make a first-class grazing farm. Price \$25 per acre. On easy terms.

77. 300 acres, 3 miles from railroad, in Loudoun county, in a high state of cultivation, well fenced, plenty of fruit, running streams and springs; on pike, fine, large Colonial house, lawn and shade, large new barn with basement, necessary outbuildings. This is considered one of the best stock farms in the county, and a bargain. Price, \$63 per acre; \$61 has been offered for this place worth \$100, on easy terms. The biggest bargain in Loudoun county.

61. 212½ acres in Fairfax county, 1½ miles from rail, 7 miles from electric line; 2 miles from thriving town on two public roads, 30 acres in timber, 2 miles of woven wire fencing, rest stone and rail; 7 fields with spring in each, 10 acres in fine orchard. Good stone and brick house of 10 rooms with bath; hot and cold water in kitchen, two porches, well located in grove of trees; good barn with basement for forty cows and seven horses, all necessary outbuildings. This farm is surrounded by good neighbors in a nice section. Price \$11,000. Make us an offer.

88. 841 acres 5 miles from Herndon, over good roads; one mile from pike; 200 acres in timber, part of it extra good; land rolling and well drained; convenient to schools, churches, stores, etc. Three sets of buildings, two houses, barn, etc. In good condition. This place is especially adapted to stock raising, and is cheap at \$23 per acre. \$6,500 down, balance to suit.

The biggest bargain in Fairfax County.

SEND FOR NEW SPRING LIST.

A. H. BUELL, Real Estate Broker,
HERNDON, VIRGINIA.

RARE BARGAINS IN Northern Virginia Farms

A Few Specimens:

No. 172. Contains 315 acres—40 acres in oak and hickory timber; 5 miles from station, situated near the village; considered one of the best wheat and grain farms in Fairfax county. The land is a little rolling; machinery can be run all over it. The land is all in good state of cultivation; well fenced and watered by springs and running streams. Improvements are a good 7-room house with elegant shade, good stable and all out-houses in good repair. Price \$20 per acre.

No. 194. Contains 175 acres, 25 acres in good timber, balance is cleared, 9 acres in orchard in full bearing, good six-room house, old barn, good granary, hen houses, dwelling in a grand oak shaded lawn, spring at house, farm watered by streams and springs, situated on good pike. One hour's drive from Leesburg, Va. Owner is anxious to sell. Price \$3,500.

No. 208—600 acres Loudoun Blue Grass land, 8-room brick house, in good repair, farm well fenced, elegantly watered, excellent bank barn, good orchard, fine timber. Price \$25.00 per acre.

No. 201—406 acres, Loudoun Blue Grass farm 8-room brick and frame dwelling, elegant repairs, excellent barn 40x100, water in every field, well fenced, good orchard. Price \$10,500.

No. 202—475 acres, Blue Grass land, small 5-room house, land is good, well fenced, excellent water, good small orchard, excellent situation, but buildings are only fair condition. Price, \$9,000.

No. 209.—206 acres, beautiful little Loudoun County farm, 6-room dwelling, beautiful shaded lawn, water in all fields, good fences, land is smooth and level, good barn and outbuildings. Price \$6,500.

No. 210.—273 acres, Loudoun blue grass land, well located in grazing section, excellent orchard, well watered, 6-room house and outbuildings in fair condition. Price \$13.50 per acre.

Write for complete description of these properties and Catalogue of other places.

Wm. Eads Miller,
HERNDON, VA.

ABOUT BUYING A WAGON.

A mistake in buying is a costly mistake. A wagon is used so much that it must be strongly built and it must be made of good materials. There are machines a farmer may try to economize on, but the wagon is not one of them.

The better plan in buying a wagon is to get at once right to the root of the matter and decide to buy something known to be standard. In this connection we might mention the Weber and Columbus wagons which are sold everywhere by local agents of the International Harvester Co. of America, or the New Bettendorf steel wagon sold by the same Company.

Our advice is not to look for a "bargain" in a wagon. Be willing to pay a fair price and insist on quality. That course insures satisfaction months and years after the purchase is made and the paint and varnish have begun to wear off. It is the course that will save many a repair bill which makes the real cost of the "cheap" wagon much more than you bargained for when you made the purchase.

A wagon of known dependability, bought for a fair price, from the responsible local agent of a responsible company is the one that will prove to be the true bargain. Catalogues setting forth the merits of the wagons mentioned above can be had from International local agents or by writing to the home office of the Company at Chicago.

BALING PRESSES AND THEIR USES.

Any one interested in the baling industry should write to P. K. Dederick's Sons, 55 Tivoli St., Albany, N. Y., for a copy of their recent catalogue, which is sent to any address absolutely free. This booklet contains a lot of interesting facts about baling presses, and also shows that the high prices realized in the market for baled hay, straw, etc., depend very largely upon the appearance and make-up of the bale.

The baling presses built by this firm cover a broad range of purposes and are noted for their superior construction, great endurance and consistent operation. This fact is not to be wondered at when it is remembered that P. K. Dederick, the founder of this firm, was the man who invented the baling press, and first introduced it in this country and abroad.

Before you buy a baling press it will pay you to write for this catalogue, and learn of some one particular Dederick Press exactly adapted to your special needs.

Wake Co., N. C., April 10, '09.

The Southern Planter is an A No. 1 agricultural magazine, full of good news.
J. B. TISDALE.

CRITTENDEN'S VIRGINIA Real Estate and Loans Office

Unimproved land at \$10. Improved lands at \$25 per acre and upwards. Loudoun is not the Best County in the State; but it is better than the REST in many respects.

If you wish to locate a home, or buy any other property, advise me as to your wants and I will send you SPECIAL DESCRIPTIONS that will please you. All Propositions Guaranteed as Represented.

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Old Virginia Farms.

Climate and Productiveness unequalled. Largest sale list in the State. For full particulars and Free Catalogue address

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Our farmers made \$100 per acre clear from early potato crop season of 1908. This is the coming section. Write us.

PIEDMONT AND TIDEWATER LAND COMPANY (Inc.),
Box P, Williamsburg, Va.

FARMS.
Mineral and Timber Lands.
Free list on application.

W. A. PARSONS & CO.,
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FIRST IN TWENTY-FIVE YEARS.
Visio Remedy Ass'n, 193 Wabash
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Gentlemen:—During my twenty-five years experience as an owner of horses and a close observer of them, I have never before considered it possible to publicly recommend any particular remedy above all others, but what I have seen your eye remedy—Visio—accomplish compels me to break the rule.

Your Visio has absolutely cured my horse of Periodic Ophthalmia after he had three acute attacks of the disease and the eyes are as perfect as ever and free from any defect.

I used one bottle of Visio on a saddle horse which had an attack of moon-blindness and the curative result was immediate.

I cheerfully recommend Visio to any one having a horse with any defect in the eyes.

Yours truly,

R. C. GUNNING.

Elliott Stock Farm, Waukegan, Ill.

IMPORTANT TO CATTLE FEEDERS

Experiment stations and individual investigators are giving farmers and cattle feeders some new ideas about raising cattle, great to their profit. There is more to the business than the simple act of giving each animal sufficient quantity of grain and fodder twice or three times a day.

The great point to be considered is not so much grain and fodder, as how to make grain and fodder digest up to the maximum capacity of the animal. This is possible, and it is done by the use of a digestive tonic given in the daily ration—a method of feeding known among stockmen as "The Dr. Hess Idea."

Dr. Hess, himself a farmer and feeder, recognized the importance to the cattle industry of such a preparation. It was evident to him—and every man who handles cattle to-day knows the same fact—that the greatest losses in the feeding business come through lack of appetite, digestive breakdown or some other form of stomach and bowel trouble. Hence Dr. Hess argued that a tonic containing elements everywhere recognized as beneficial, would greatly lessen this costly trouble and be a positive form of economy. Dr. Hess Stock Food was the result, and thousands of feeders can testify that it has saved them a great deal of money, to say nothing of annoyance and trouble.

Davidson Co., N. C., April 8, '09.

I have been reading the Southern Planter for five years and I get a great deal of information out of it and much pleasure and comfort. You teach good up-to-date practical, money-making farming and live stock raising and many good things that pertain to this. I wish you luck and plenty of it.

W. B. MEARES.

The Oldest Established Real Estate Agency in Northern Virginia

Northern Virginia Farms

AND

COUNTRY HOMES

Near Washington, D. C.



A. H. BUELL, Real Estate Broker, Herndon, Va.

JOHN F. JERMAN

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If you want to buy a grain, dairy, fruit, truck, poultry or blue-grass farm, city or village property, it will pay you to send for 80-page catalog. It is full of bargains. It contains all kinds of business propositions. It will pay you to buy a farm near the Capitol, where you have good markets, and the benefit of steam and electric R. R. service.

My catalog is free to you.
I am always ready to show property, and try to help my clients make a good investment.

My Motto is "Honesty and Fair Dealings."

When corresponding with our advertisers always mention Southern Planter.

ATTENTION

HOMESEEKERS AND INVESTORS.

Send for my Map and new Catalogue showing and describing this section of Northern Virginia, and a complete list of all property now on the market, consisting of Grain, Grass, Dairy, Fruit, Stock, Truck, Poultry, and Blue-grass Farms, Town and Business Places.

I claim and can prove that this section shown by my map, has advantages over any other part of the State. It is not only beautiful and healthy but is productive and progressive, and very accessible to Washington and Alexandria cities, by rail and pike which gives all producers a fine home market.

I am not a broker or speculator, I bring the buyer and seller face to face, I have no speculative interest whatever in any property. My business is wholly on commission which is paid by the seller.

References furnished in my Catalogue. If you can't come, write.

W. H. TAYLOR, Herndon, Va.

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RICHMOND AND WASHINGTON.

Virginia FARMS

Best Railroad Service and Climate.

150-A. Large brick dwelling, running water, land in a high state of cultivation. Beautiful location, 3 miles from railroad. \$6,000.00.

197-A. Dwelling, barns, etc. \$2,000.00

425-A. Five miles from Richmond, in dairying section. Dwelling, saw-mill, etc., to go with the property. \$8,000.00

FRANK H. COX,

Ashland, Hanover Co., Va.

A CHARMING OLD VIRGINIA HOME in Albemarle Co., 540 acres, 150 being rich low grounds. Timber and river boundary. Colonial style brick dwelling, some modern equipment and in first class condition. All necessary out-buildings. Extended and beautifully shaded lawn. Magnificent views. Station one mile. Great hunting territory close by. Price \$25,000.

Illustrated Register free. Also handle timber and mineral lands.

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Virginia Farms

MOST SELECT LIST, and in all sections of the State.

FREE CATALOGUE.

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Richmond, Va.

REAL ESTATE FOR SALE.

From the Mountains to the Ocean. Catalogue free. Loans made on farms. Established 1875.

GEO. E. CRAWFORD & CO.,
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"In the Green Fields of Virginia."

Homes for all; health for all; happiness and independence for all. All sizes of Farms at corresponding prices but ALL reasonable.

MACON, & CO., ORANGE, VA.

GOOD HOUSEKEEPING.

Salmon Loaf.

Drain off all the liquid from two cans of salmon, pick out the bones and skin and pick the fish to pieces with a silver fork. Make a pint of thick white sauce—a heaping tablespoon of butter creamed with two heaping tablespoons of flour, over this pour a pint of scalding milk, stirring it in slowly. Set it in a double boiler to thicken, then cool. Add to this two cups of fine stale crumbs, pepper, salt and a teaspoon of onion juice, three beaten eggs. Mix in the salmon, press it into a loaf pan and set it in a pan of water in the stove and bake half an hour. Turn this out and serve hot or cold with either white sauce or lemon. Garnish with parsley.

Cold Canned Salmon.

Keep the cans of salmon on ice until thoroughly chilled, then empty the can and pick up the meat, discarding the bone and skin. Pile it on a dish and garnish with rings of hard boiled eggs and curled parsley. Pour a cup of mayonnaise dressing over the pile, just before the meal, or else serve the sauce in a dish separately and let each person add it to taste. A cup of chopped nuts added to the salmon is a delightful addition and you may use the bought dressing instead of the home-made with very good results.

To Cook Belgian Hares with Onions.

Those who are so fortunate as to have a pen of hares will find this a choice way to prepare them when they are about five months old. Skin and draw the hare, cut it into pieces and fry on a hot griddle, browning slightly on both sides, then take the pieces out, put a layer of nice fat middling on the bottom of a deep pan; then arrange the hare on this, and then a layer of thinly shaved onions and another layer of the fat meat, salt and pepper; pour over this enough beef stock, or water, to half cover and set the pan into the stove to bake slowly for two hours; if the water boils out too fast add more and a little thickening to the gravy.

To Stew Cymplings.

Peel and boil the young cymplings until tender; mash them through a collendar and return to the pan; add to each pint a cup of rich milk, a tablespoon of butter and salt and pepper to taste; boil, and just before serving add half cup of cream.

Fried Cymplings.

Boil or steam the young cymplings until not quite done; let them cool, then slice them; sprinkle salt and pepper over them, dip in beaten raw egg, then in cracker crumbs; fry in hot fat turning to brown on both sides. These are almost as good as fried egg plant.

Corn Pudding.

On pint of milk, three eggs beaten, a heaping tablespoon of butter, two tablespoons of cornmeal, a teaspoon

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Excellent Farm

For Sale; 424 acres, 12 miles from Richmond, and 4 from trolley; will sell in part or as whole; easy terms. GEO. W. HUNT, Meadow, Va.

Tell the advertiser where you saw his advertisement.

of salt, or more, a tablespoon of sugar, the corn from six good ears of tender corn; pour into a pudding dish and bake forty minutes.

To Cook Lima or Butter Beans.

Shell the beans and one hour before dinner throw them into a kettle of boiling water; keep them boiling until dinner time then drain off the water and dress them with butter, pepper and salt and half a cup of cream with a teaspoon of flour dissolved in it. Boil up once and serve.

Boiled Cabbage.

Cabbage cooked this way may be eaten by the most delicate person without any bad effects. Quarter and wash the heads; let them stand in cold water until an hour before dinner. You must have all ready boiling a pot of water with a good piece of middling in it; put the cabbage in, cover and let it boil hard for an hour. When you put in the cabbage add a small pod of red pepper, and just before you take it off add a teaspoon of soda. Serve very hot, and always have Irish potatoes to eat with it.

Chow Chow.

One peck of green tomatoes, four large heads of cabbage, twenty-four large onions, four dozen cucumbers, full grown, two pints grated horseradish, two pounds of white mustard seed, two ounces celery seed, one teacup of ground pepper, one teacup of turmeric, two ounces stick cinnamon, two pounds brown sugar. Cut the vegetables in small pieces and sprinkle a pint of salt through them. Let them stand for several hours, then put them in a bag and let them drip all night. Cover with hot vinegar and let them stand for two days, then add a box of ground mustard and put on the stove in a granite kettle and simmer for three hours. Pack away in stone jars and it will be ready for use in two months.

Pickled Blackberries.

One pound of sugar, one pint of vinegar, one teaspoon of allspice, one of cinnamon, one of cloves, one of nutmeg. Boil these for fifteen minutes, then put in three quarts of firm not overripe blackberries. Let them stay on the stove and simmer but not boil for twenty minutes more, then turn into glass jars; fill full and screw up at once.

Currant Wine.

This recipe is said to have been copied from one used by Mrs. General Lee. Three pounds of brown sugar to every squeezed gallon of currants; a gallon of water to every gallon of juice, two gallons of water if the juice is scarce. It is better to put it into a wine cask, and let it stand one year before drawing it off.

Jam Cake.

Two-thirds of a cup of butter, three eggs, one cup of sugar, three tablespoons of buttermilk, two cups of flour, one even teaspoon of soda, one teaspoon each of cinnamon, nutmeg

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\$16,000.—Contains 346 acres, 50 acres timber, balance in blue grass sod, excepting some small crops. Good orchard consisting of standard varieties of apple and pear trees. Soil is cecil or chocolate clay. Watered with mountain springs and streams. Is conveniently divided into fields, and is substantially fenced with woven wire and locust post. Situated right at railway station. Incorporated town at foot of mountains. Macadamized road divides the farm and passes directly in front of lawn and dwelling. Improvements: 9-room Colonial dwelling, one bath-room—hot and cold water in bath and pantry; front and back stairway, two halls and reception hall; cellar under entire dwelling, out-kitchen, servants' room, ice-house. Dwelling is surrounded with large and sloping lawn; delightful shade, consisting of numerous varieties of choice trees. Stone entrance. Two large barns, about 40x60 feet, in perfect condition; two tenant houses, hog house, corn house, chicken house, implement house and wood house are among the outbuildings.

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\$3,500.—Contains 120 acres, 25 acres in timber, balance in grass and under cultivation. Situated on Potomac River, 3½ miles of railway station, in Loudoun county, Va. Is well fenced and conveniently divided into fields. Improvements: Eight-room dwelling, porches, shade, large lawn; new barn 20x26 feet; spring house, garden, small fruits.

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and allspice, one cup of berry jam put
in the last thing. Bake in layers.

White Cake.

One and a half cups of sugar, half
cup of butter, three-fourths of cup of
milk, whites of four eggs beaten dry,
two cups of flour, one and a half cups
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Peanuts are easily grown, find a
ready market at good prices, the
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splendid soil improver. Being the
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respect.

In regard to the peanut as a soil
improver, we quote Prof. Burkett, of
Raleigh, N. C.:

"Were you to examine the roots of
the peanut plant, you would find a
wart-like or knotty growth the size
of a pinhead, or a little larger that
plays such an important part in the
life history of this plant. These wart
like or knotty growths are really the
homes of the bacteria that gather the
atmospheric nitrogen and convert in-
to a form available to plants. These
organisms that live in the root tu-
bercles gather the nitrogen from the
air, and furnish it without cost to the
plant. In this way, the total amount
of nitrogen often acquired is often in
excess of analysis showing it to be
present and available to the soil. Thus
the tubercle bearing crops, like the
cowpea, clover and the peanuts are
soil improvers. For this reason it is a
profitable crop for the farmer. It
should be remembered that the man-
ner of harvesting the peanut lessens
the soil-improving value. This is be-
cause the stored-up and newly gath-
ered nitrogen is in the tubercles in
the roots. When harvested these tu-
bercles are dug up with the nut, and



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With the increasing scarcity of labor, and the high wages paid for help, the profits from the peanuts were small, notwithstanding the increased demand. The question resolved itself into either abandoning the planting of peanut crops or the introduction of improved methods for harvesting that would cut down the cost of production.

First, in the planting of the crop. Other planters were used with indifferent success, but a planter made especially for planting peanuts has been placed upon the market with highly gratifying results.

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Plant your peanuts in uniform rows not less than two and a half feet apart. Work well and lay by on a uniform ridge, taking care not to leave bumps in the middle of the row. Plant two or three rows parallel to fence or ditch for convenience in turning at the end of rows.

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Embroidery Pattern 416.

The blouse is made with the yoke, and the full front and back portions, which are tucked and joined to its lower edge. The sleeves are in one piece each, with the seams so arranged as to be nearly invisible, and can be made either long or in three-quarter length. When the high neck is used, a regulation stock collar makes the finish.

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QUALITY**Poland - Chinas.**

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VINELESS, SOUTHERN QUEEN
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Five yearling Rams, good individuals, good sized and well marked, \$15 to \$20.

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EDGEWOOD STOCK FARM.

DORSETS

I still have some choice Nov., Jan., and Feb. lambs left; better this year than ever. Will be pleased to quote you prices. Remember my lambs are from large strong boned ewes and have blood from the best flocks in this country and England. I am prepared to furnish grade ram lambs at ten dollars f. o. b. Let me hear from you; I can please you. Address

H. H. Arbuckle,
Maxwelton, W. Va.

DORSET SHEEP

I have to offer, this season, some very fine Dorset Rams; prices in reach of all.

SAMUEL T. HENINGER,
Burke's Garden, Va.

WOODLAND FARM

DORSET SHEEP

We have a few real Flock Headers in Rams, and a few splendid young ewes, which we offer at reasonable prices.

CHARLES B. WING,
Successor to J. E. Wing & Bros.,
Mechanicsburg, Ohio.

PURE-BRED

SHROPSHIRE

Yearling Bucks and Lambs, well woolled, close, blocky fellows; best for early lambs.

SUFFOLKS.

Bucks, Lambs, Yearlings and Two-Year Olds for sale, cheap to close out
T. C. DICKERSON,
Route 3, Staunton, Va.

Please mention the Southern Planter.

in one size only, and will be mailed to any address by the Fashion Department of this paper on receipt of ten cents for each.

Especially designed for bordered material. To be worn with or without a guimpe.



6350 Girl's Dress, 8 to 14 years.

The simple little dress that can be worn with or without a guimpe as the occasion demands is one sure to be wanted during the warmer months. This one is made with the blouse and skirt joined by means of a belt and is closed invisibly at the back. In the illustration the material is one of the pretty, inexpensive, printed wash fabrics woven with a border, and this border has been cut off and applied as trimming but any seasonable material can be used with banding of embroidery or lace, of contrasting material or braid, or, indeed, anything that fancy may suggest. The square Dutch neck and the short sleeves are extremely fashionable as well as eminently comfortable for a warm day, but should there be need of warmth, a guimpe can be worn beneath. Lawn and batiste are charming so made, but the simpler chambrays and gingham are equally suitable, so that the dress becomes ap-

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FARM**

OFFERS FOR SALE

Three Red Poll Bull Calves, from three to six months old;
Eight Yearling Shropshire Bucks;
Two-year-old Shropshire Bucks;
One fine old Registered Buck, an excellent animal, raised by Oakleigh Thorne, Esq.

AARON SEAY, Manager,
Carter's Bridge, Albemarle Co., Va.

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**DORSET RAM
LAMBS FOR SALE.**

C. E. JONES, - CARYSBROOK, VA.

FIVE NICE

SOUTHDOWN BUCK

Lambs For Sale.

G. W. PATTESON, Manteo, Va.

THOROUGHbred

**BERKSHIRE BOARS,
JERSEY BULL CALVES,
DORSET BUCK LAMBS.**

Sire of calves, **FLYING FOX**, 65456, son of Flying Fox, who sold for \$7,500 at the Cooper sale, 1902.

All stock in best condition and guaranteed as represented.

F. T. ENGLISH, Centreville, Md.

TAMWORTHS.

The lean bacon hogs—pigs, bred sows, and service boars, all registered and of best blood.

BERKSHIRES.

Fine pigs and service boars entitled to registration and of blue ribbon stock. Am out of Poland-China pigs at present.

J. C. GRAVES, Barboursville, Va.

**DUROC
JERSEY
SWINE**

Best Blood. Nothing but the best individuals offered for breeders.

WARREN RICE, Vacluse Sta., Va.
Frederick County.

MEADOW BROOK FARM

FOR SALE—Choice lot of large **YORKSHIRE PIGS** males and females, not akin, from America and England's best breed.

J. D. Thomas, Prop.
Round Hill, Va.



Please mention the Southern Planter.

Horses and Mules at a Bargain.

One handsome black mare, 5 years old; extra fine driver, with plenty of style, beautifully shaped; easy to keep; works well everywhere.

One light bay mare, 5 years old, weight about 1,050 lbs., height 15½ hands. Gentle enough for a family horse. Handsome and stylish enough to please the most fastidious.

One mahogany bay mare, 6 years old, weight about 1,000 lbs., height 15½ hands. A reliable worker anywhere. A handsome and stylish driver. These animals are all fine brood mares and will be bred free of charge to superb Hackney stallion. They are all home raised with good blood in them and will be sold under a full written guarantee.

One pair of well matched black horse mules, 2 years old, blocky and well shaped. This pair of fine two year olds will be sold at a special bargain if bought at once.

One beautiful Bay Saddle and Harness Mare, five years old, 900 pounds. Stylish and fast. Superb Lady's Saddler.

WM. M. WATKINS,
Saxe, Charlotte Co., Va.

HACKNEYS

For Sale: 4 year old Chestnut Stallion, 1st. prize as a 3 year old; three 2 year old Stallions; some fine fillies, elegantly bred, by such horses as Matchless Dane and Baghorpe Sultan.

Aldie Stud and Stock Farms
ALDIE, VA.



SADDLERS.

We are making special prices on fifteen high grade Saddle Mares; also Mule Mares, for the next sixty days. If you want a saddler of any description, write us.

J. F. COOK & CO.,
Lexington, Ky.

TWELVE FINE

JACKS

From three to six years old for sale at reasonable and accommodating terms or will exchange for mules.

H. C. LESTER,
Martinsville,
Henry County, Va.

FOR MORGAN COLTS

and Fillies and High-Bred Fox Hound Puppies. Address,

Dr. JOHN D. MASSENGILL,
Blountville, Tenn.

propriate for both morning and afternoon occasions.

The dress consists of the skirt and the blouse. The blouse is made with front and back portions, but the skirt is straight and laid in backward turning plaits. The sleeves are short and in one piece each.

The quantity of material required for the medium size (12 years) is 6 yards 24, 4 5-8 yards 32, or 3 1-2 yards 44 inches wide, with 8 yards of banding or 8 yards of bordered material 24 inches wide.

The pattern 6350 is cut in sizes for girls of 8, 10, 12 and 14 years of age, and will be mailed to any address by the Fashion Department of this paper on receipt of ten cents.

A JOURNAL OF EASTERN TRAVEL.

On November 17th (1905) we were invited to the Imperial Garden Party, which is considered the finest chrysanthemum show in the world. A few days beforehand, a page brought our invitation, printed in gold, with Japanese writing, and stamped with the Imperial crest, kiku-no-mon, the 16-petaled chrysanthemum. Translated the card read:

"The Emperor and Empress command the Minister of the Imperial Household to invite you to Akasaka Palace on November 17th, at 2 P. M., thirty-eighth year of the meiji.

Official duty or sickness is no excuse for absence."

This event became the absorbing topic of the day, and people came from every direction to be present. Imagine, then, the heartburnings when we awoke in a pouring rain on the 17th, and it was announced there would be no official garden party, but it would be held unofficially the next day. No one had the heart to smile in the hotel that day, and many of the intended guests left immediately.

The 18th was fine weather, and we started, unofficially, for the palace. Presenting our cards at the gate, we were admitted by the guards into the grounds, and went forward over the velvety turf to the covered trellises and arbors, arranged temporarily for the flowers. Really they were wonderful, though the separate blossoms were scarcely equal to the best varieties our florists raise. They were of every shade and kind, and in some instances, twelve varieties were grafted on one plant, and all were blooming profusely. Some plants were twisted over frames into the shapes of birds and boats.

The marvel of the place was a white bush, bearing 950 large, perfect blossoms. Many had 400 or 500. The company was a representative Japanese assemblage, including but few foreigners. The Japanese ladies and girls were very dainty and sweet, and exquisitely draped in crepe kimonos in pastel shades, with richly embroidered obis or sashes. They wore no

PREMIER BERKSHIRES

The large, lengthy, growthy kind. A fine lot of pigs, bred from first-class sows, ready for April delivery; prices right. B. P. Rock eggs \$1 for 15.

J. T. OLIVER, Allen's Level, Va.

DUROC-JERSEY and TAMWORTH SWINE.

Sterling Stock Farm,
R. W. Watson, Petersburg, Va.

CHESTER WHITES.

Best hog on earth. I am now booking orders for spring pigs. Please let me have your orders. Satisfaction guaranteed.

S. M. WISECARVER, Rustburg, Va.



Reg. P. Chinas, Berkshires, C. Whites. Large strains. All ages, mated, not akin. Bred Sows, Service Boars, Guernsey Calves; Collie and Beagle Pups and poultry. Write for prices and circular.

P. F. HAMILTON,
Cochranville, Chester Co. Pa.

PINEHURST BERKSHIRES

Fifty (50) Berkshire Hogs for sale. The best blood in the country.

Send for catalogue and price list.

LEONARD TUFTS, Pinehurst, N. C.

Devon Herd Established 1884. Hampshire Down Flock Established 1880.

DEVON CATTLE

BULLS AND HEIFERS,
HAMPSHIREDOWN SHEEP,
RAMS AND EWES.

ROBERT J. FARRER, Orange, Va.

Ingleside Herefords

Polled and standard bred—200 head in herd. All ages, both sexes. Write for catalogue and prices. Inspection invited. Farm near Alderson, W. Va., on C. & O. R. R. Address.

S. W. Anderson, Blaker Mills, W. Va.

Elkton Stock Farm

Breeders of pure-bred, registered Hereford Cattle and Berkshire Hogs. Young stock for sale at all times at reasonable prices. All statements and representations guaranteed.

Forest Depot, Virginia.

Walnut Hills Herd.

Twenty-five Registered Angus females and two bulls for sale.

J. P. THOMPSON, Orange, Va.

LOOMIS,

"THE HOLSTEIN MAN".

offers to a quick buyer, at a very low price, one high bred Registered Holstein Male, born May 25, 1909. A grand individual, but too dark for fancy market. Will be sold at a sacrifice. Write at once.

J. B. LOOMIS, Richland, N. Y.

KILL LICE, MITES, TICKS

And other Dangerous Parasites on ANIMALS and FOWLS with

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Destroys
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Infected
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BLACK-DRAUGHT STOCK MEDICINE CO., Chattanooga, Tenn. ^{P.D.1}

"PRACTICAL FARMING"

Prof. W. F. Massey's latest and best book is now on sale. It retails for \$1.50, and is worth it. We shall be very pleased to send you a copy at above price and will include a year's subscription to The Southern Planter. Remember, we deliver the book and give you a whole year's subscription for the price of the book, \$1.50.

SOUTHERN PLANTER, Richmond, Va.

RED POLLS

Somehow we can't supply the demand for our Red Polls. Wish to thank our patrons for their kind words. All cows and calves sold up to date. Will book orders for calves this fall.

We will sell one prime Herd Bull, a grandson of Magiolini; no better Herd Bull in Virginia.

H. B. Arbuckle, Maxwellton, W. Va.

JERSEYS

Combination and Golden Lad. For sale 46 Cows, 6 Heifers, 25 Bulls.
S. E. NIVEN, Landenberg, Pa.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

hats, but shaded their faces from the sun with a fan. The girls had their hair elaborately dressed in high puffs, like a fan or a butterfly, with coral or shell ornaments in it. Married women draw their hair softly back from their faces.

The men were in regulation European clothes, with top hats. The officers were in uniform, with their orders. All were lighthearted and smiling. We were greatly struck with their extreme courtesy and sweet ways towards each other. They would bow several times, most profoundly, in greeting a friend, and I doubt not, made the most polite speeches to accompany the bows, only we could not understand them. The usual foreigners' ball on the Emperor's birthday was omitted this year, owing to the pressure of war debts, but we celebrated the event by going with a Japanese officer to the Kabuzika Theater to see an old historical play which began at ten in the morning, and lasted until midnight. The attendance was large, and servants were kept busy checking the shoes which were left at the door, and piled up nearly to the ceiling. We could not understand the play, nor our friend's ex-

\$1.00

3 THE BIG THREE 3

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Richmond, Va., 50c. a year.

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THE INDUSTRIOUS HEN

Knoxville, Tenn., 50c. a year.

These three monthly publications will be sent for one year for only \$1.00. Address,

**SOUTHERN PLANTER,
Richmond, Va.**

Fairfax Co., Va. April 1, '09.

The Southern Planter is the best paper I ever read and well worth the money. If more farmers would take its advice they would be better off.

FRANK T. NEVITTE.

WANT ADS.

Rates 2 cents per word. Cash with order. Initials and figures count as one word; 25 cents minimum charge.

POULTRY, ETC.

YOUNG COCKERELS, SINGLE COMB White Leghorns. Not the ordinary kind, but aristocrats; March and April hatched. We need the room, and are compelled to sell one hundred of these young cockerels. Beginning July 5th, we will dispose of them at 75 cents each, two for \$1.25. These birds will be worth from \$1.50 to \$5.00 three months later. If you need extra choice breeders, avail yourself of this opportunity. Sterling Poultry Yards, Box 626, Staunton, Va.

BERKSHIRE PIONEER POULTRY Yards offer Golden Penciled Hamburgs, White Crested Black Polish, 13 eggs, \$2; Salmon Faverolles, 13 eggs, \$3; Silver Spangled Hamburgs, Partridge Wyandottes, Black Breasted Red Game Bantams, Cornish Indian Games, Pearl Guineas, White Guineas, Pekin Ducks, Indian Runner Ducks, 13 eggs, \$1. Circular, A. E. Parsons, Berkshire, N. Y.

WANTED TO SELL ON ACCOUNT OF moving, 50 S. C. Brown Leghorn and 50 Buff Plymouth Rock Hens at 75c. each; 3 White Holland Turkey Hens, \$2 each; 1 Tom, \$3; 5 Mammoth Pekin Ducks, \$4. All of above stock pure. Mrs. M. I. Stoddard, Roxbury, Va.

RARE BARGAIN IN BREEDING PENS of the following breeds: Light and Dark Brahmas, White and Barred Rock, R. I. Reds, White, Buff, Silver Lace, Partridges and Columbian Wyandottes. Eggs reduced; 25 varieties. Write your wants to-day. Clarence Shenk, Luray, Va.

BARGAIN—TO REDUCE MY STOCK, offer rare opportunity to buy Pure-Bred R. C. Rhode Island Red and S. C. White Leghorn Cockerels, hatched April 1st. A. B. Burrus, Fordwick, Va.

WHITE WYANDOTTE EGGS FROM pure-bred, prize-winning and trap-nest stock. Sitting 15, \$1. Jno. Stokes Prop. Farmville Poultry Yards, Farmville, Va.

WHITE WYANDOTTES OUR SPECIALTY. 20 eggs from best pure-bred and bred to lay strains. \$1. Special price. Sunnyside Farm, Jonesville, Va.

FOR SALE—WELL COLORED ROSE-Comb Rhode Island Red Cockerels, four months old, at \$1 each. Margaret Moncure, Rectory, Va.

SOME NICE WHITE WYANDOTTES for sale. O. O. Harrison, Mt. Ulla, N. C.

LIVE STOCK.

FOR SALE—THREE CHOICE ANGUS Bull Calves, 10 Cows, 8 Heifers, Choice breeding, mostly Prince Ito blood; 5 Hackney brood mares, 2 Yearling Fillies, 5 trotting bred Mares, 1 Yearling, 1 2-year and 2 3-year Fillies, all high class racing blood, and should go fast; 2 Geldings, 1 and 2 years; 1 Clydesdale Stallion, 2 years; 1 trotting bred Stallion; Don Piza 27060, one of the best Sows of the great Gambetta Wilkes. Myer & Son, Bridgeville, Del.

TAMWORTH SERVICE BOAR Amberdale 5427 for sale. Farrowed April, 1908. A good individual of good breeding. He is related to most of my sows, or would keep him for own use. If sold this month, price \$45. S. Graham Smith, Dixondale, Va.

ONE AND TWO YEAR OLD RAMS by Davidson's 1825, which cost me \$65 as a weanling; will sell him now for \$100; ram lambs from \$8 to \$10; yearlings, \$10 to 12, and two-year-olds, \$12 to \$15. Edward Ray, Route No. 5, Danville, Va.

SEVERAL YOUNG REGISTERED Aberdeen Angus bulls. Sired by Gold Nugget 26957, who was never beaten in the show ring, at farmers' prices. David I. Jaynes, Massaponax, Va., Member of the Aberdeen Angus Breeders Association.

FOR SALE—HIGH GRADE RED POLL Cattle. Calves, \$25; Yearlings, \$30; Fresh Cows, \$50. To exchange High Grade Red Poll Cattle for second-hand 6 H.-P. Gasoline Engine, Horses, Colts or Mules. O. C. Hooker, Amelia, Va.

PONIES—SEVERAL SHETLAND AND others for children, well broken. One pair matched roan mares, 5 years, kind; single and double. J. M. Cunningham, Brandy Station, Va.

FLEETFORD FARM, BEDFORD CITY, Va., I am offering a few choice Berkshires from registered stock at reasonable prices. Dr. M. A. Crockett.

FOR SALE—TEN DUROC BOARS and lot of pigs eligible to register, at the right price. Look up my poultry ad. on another page. C. L. Shenk, Luray, Va.

FOR SALE, TWO SHORTHORN COWS, age five and 7, also a nice Red Heifer, two years old. All stock registered. Apply to A. T. Booze, Springwood, Va.

REGISTERED PERCHERON MARES in foal or with foal at foot. Birdwood Stock farm, Birdwood, Va.

FOR SALE—REGISTERED JERSEY Bulls from one to two and one-half years old; also two fine Heifers. Address Riverside Park, Morganton, N. C.

WANTED FOUR TO SIX REGISTERED Yearling Shorthorn Heifers, from good milking strain. Must be good ones at reasonable prices. Address Box 1, Somerset, Va.

LARGE YORKSHIRE HOGS, RED Polled Cattle and Hampshire Sheep. Best of breeding at bargain prices. W. E. Stickley, Strasburg, Va.

TO REDUCE FLOCK, TWELVE PURE bred Shropshire Ewes for \$60, if taken in one lot. Address P. S. Hunter, Loretto, Essex Co., Va.

LARGE YORKSHIRE PIGS, PAIRS NOT related, and Hampshire Sheep, Rams and Ewes. Best breeding. J. D. Thomas, Round Hill, Va.

DORSETS AT FARMERS PRICES.—Yearling Bucks, \$15; Ewes, \$12; Buck Lambs, \$10; Ewe Lambs, \$8, f. o. b. L. P. Nelson, Culpeper, Va.

FOR SALE—SEVEN MONTHS' OLD Jack Will sell cheap. Apply to A. C. Horsley, Warminster, Va.

BERKSHIRE GILTS FOR SALE Shipped on approval. J. W. Adams, Addison, Va.

PURE BRED SHROPSHIRE BUCK for sale, to avoid inbreeding; price, \$10. T. J. Fitzgerald, Chatham, Va.

TAMWORTH BOAR PIGS. CHOICE ones only offered. Three and four months at \$10 and \$12 each. Eligible to registry. Lusty, growing fellows. TAMWORTH blood for growth, large litters and fine meat. I shall sell only the VERY GOOD for breeding. The others you can buy later as hams and bacon; but they will cost you more. S. Graham Smith, Dixondale, Va.

DORSET BARGAINS—REGISTERED and grades. Exceptional prices to prompt buyers. H. Armstrong, Box 244, Mt. Jackson, Va.

FOR SALE—REGISTERED PERCHERON yearling stud colts. Birdwood Stock Farm, Birdwood, Va.

YORKSHIRE PIGS 7 WEEKS OLD, \$6; Berkshire pigs 7 weeks, \$5. L. B. Johnson, Charlottesville, Route 4, Va.

DOGS, PET STOCK, ETC.

WANTED—TO BUY ALL KINDS Wild Birds and Animals, particularly Tame Deer, Wild Turkeys, White Squirrels, Peafowl, Otters, Red Foxes, Gray Squirrels, Partridges, Pheasants, Beaver. State price when writing. Dr. Cecil French, Naturalist, Washington, D. C.

FOR SALE—TWO MALE BULL TER-rier Pups, three Male and Two Female Beagle Pups. All about four months old, and pedigreed stock. Dr. C. T. Smith, Croxton, Va.

FOX, DEER, COON AND OPOSSUM hounds and pups, \$3.50 to \$15 each. For bargains write me. E. F. Willmouth, Shelbyville, Ky.

\$25 BUYS A PAIR OF BEAUTIFUL English Setters, ten months old, well grown and nicely marked. H. L. Hayes, Bealeton, Va.

FOR SALE—TWO PEDIGREED Great Dane Pups, seven months old. Male, \$25; female, \$15. S. C. Wolcott, Dixondale, Va.

PURE-BRED BELGIAN HARES. Some nice stock for sale. Write for particulars. Tillman E. Jeter, FACES, Va.

THREE SHEPHERD PUPS—TWO males, one female. Driving stock. \$5. Jack Word, Christiansburg, Va.

REAL ESTATE.

FOR SALE—A VERY FINE FARM near Ringgold, Va., Pittsylvania county, six miles of Danville, Va., in a fine tobacco section. Soil very suitable for raising cattle. Contains 257 acres, three good dwelling houses, tobacco barns and other out-houses, all in good repair; has plenty of wood; also half interest in a fine Water Power Grist Mill and Saw Mill, and 50 acres of land. This mill has plenty of water, three good dwelling houses and stables. In a good section of country to buy grain. Convenient to the City of Danville, with a big sale in meal and flour. Bargain to quick purchaser. Apply to Fred S. Clarke, Ringgold, Va.

FARMS FOR SALE. TWO EXCEL-lent Farms in Lunenburg County 2½ miles south of Victoria on the Virginian Railway. One contains 209 acres, eight room dwelling, necessary outhouses. The other contains 333 acres good low grounds with two streams running through it. For full information apply to John Stokes, Farmville, Va.

WANTED—TO RENT. A PRACTICAL Farmer wants to rent a farm in Virginia not too far from transportation facilities. Will rent for cash or shares. Address, M. P., Southern Planter.

REAL ESTATE—(Continued).

FINE ESTATE FOR SALE—THREE sets of handsome buildings; residences contain 10, 9 and 8 rooms; five other settlements. Beautiful situation, good grazing and farming land, 1,200 acres. Will divide. Price \$25; close to town. A. H. Clement, Appomattox, Va.

FOR SALE, 96 1-2 ACRES GOOD LAND, all cleared, well watered, station half mile; Wahington forty miles. Make an excellent dairy farm. Will sell at bargain. Apply to L. W. Peters, Catlett, Va.

FOR SALE OR RENT 300 ACRES GOOD grain, grass and tobacco land—rich soil, good buildings and orchard; Bracey, Va., three miles. J. V. Lambdin, Invermay, Va.

CLENDENING AND THOMAS, REAL Estate Agents, Round Hill, Loudoun county, Va. Large list of farms and town property in the famous Valley, ranging in price from \$10 per acre and upwards.

FOR SALE—FLOUR, GRIST AND saw mill, water power, \$3,000; third cash, one and two years, 20 per cent. investment; also 75-acre farm adjoining; high school one mile. Walker & Coleman, Stevensville, Va.

WANTED TO BUY A SMALL FARM in Southside Virginia or Northern North Carolina. Price must be low. Will pay cash. Address "Small Farm," care Southern Planter.

WANTED TO EXCHANGE CITY LOTS in Gulfport, Miss., for Shetland ponies, collies, blood hounds, or fancy poultry. J. D. Stodghill, Shelbyville, Ky.

FINE FRUIT LAND. 94 ACRES CLOSE to R. R., 650 trees set. Will make fine summer home that will soon pay a handsome dividend. W. H. Adkins, Swoope, Va.

20-ACRE HOME, TWO HOURS DRIVE from Washington; new buildings; soft water, springs, brook, bargain. Correspondence solicited. A. Jeffers, Burke, Va.

planation of it, but it was fun to watch the people around us. While we sat in a box, reserved for foreigners, with chairs in it, the natives all sat below us on the floor, in large family groups. They sit through the whole performance, and have food served to them at frequent intervals, from the tea houses outside. The men indulged their passion for smoking either with long cigarettes, or the tiny pipe, which gives three whiffs only. The women enjoyed the luxury of grief, and wept and mopped their eyes without ceasing.

The staging was gorgeous. The scene shifters in black cowls, walking about the stage all the time. The characters were taken by men, as women are not allowed on the stage. Part of the play is spoken, but the innermost thoughts of the actors are sung by the chorus. The acting was quite impassioned. Once when all the actors howled at once, our friend told us, "They were speaking a little fun." The programs consisted of pictures from the play.

Between acts we were asked to the green room, and were introduced to

FOR RENT ON SHARES, DAIRY Farm, 204 acres, one mile from station, liberal terms. Linden Farm, Calverton, Va.

WE CAN SELL YOUR PROPERTY. Send description and price. Northwestern Business Agency, Minneapolis, Minnesota.

POSITIONS HELP.

WANTED—POSITION AS FARM MAN-AGER. Have had sixteen years experience in Virginia and the West, and thoroughly competent to handle all kinds of crops, stock, machinery and labor. Keep all farm accounts. Will give best references for ability. Address FARMER, care of Southern Planter.

MARRIED MAN WISHES POSITION on a gentleman's estate or farm; teachable; would like to learn farming thoroughly. Painter and paper-hanger by trade; wife seamstress. Address A. S., Southern Planter.

WANTED MAN AND WIFE TO TAKE charge of a small suburban place; comfortable cottage. Address, stating wages expected. Box 477, Richmond, Va.

WANTED—RELIABLE TENANT, FOR 200-acre stock farm in Southwest Virginia. References required concerning industry, management and honesty. Write fully to M. care Southern Planter.

WANTED POSITION AS GENERAL Manager on farm; good reference, years' experience. Address R. T. Kibler, Warrenton, Va.

IMPLEMENTS, MACHINERY, ETC.

THRESHING MACHINE FOR SALE—A new J. I. Case, 18x22 steel enclosed wheat thresher and cleaner, mounted on 4-wheel steel truck; complete. Has never had a sheaf run through it. Sent from the factory for fair exhibition. The most popular size made and the very latest improved. In our hands to be sold for \$200. The factory net price to their agents is \$275.40. If you will ever need a thresher don't let this opportunity go by. Ashton Starke, Richmond, Va.

ONE 3 H.-P. VERTICAL STEAM EN-gine and Boiler in first-class running order, with all fixtures. Price, \$75, f. o. b. cars at Haymarket, Va. Address John S. Ewell, Jr., Hickory Grove, Va.

FOR SALE, ONE 20-INCH OHIO FEED Cutter with 30 feet carrier. Machine in good condition and will sell cheap. Address Box 192, Richmond, Va.

WANTED SINGLE HORSE HAY CUT-ter in good order. State lowest cash price. Y. Zeebee, Simeon, Va.

SEED, PLANTS, Etc.

SEED WHEAT "VIRGINIA PRO-lific." Smooth, great for the South; big yielder. "Malakoff" Russian Wheat, Bearded, and other good kinds. Some "Reds" yet for sale. W. Shook, McGaheysville, Va.

MISCELLANEOUS.

FOR EXCHANGE—MANUFACTURING interest up to \$10,000, for good sandy clay farm (even neglected), east of the ridge, south the Mason-Dixon line, and north of Charlocation, condition, improvements and oil consistency and depth; also rice, to R. B. Leatherman, Delray, Fla.

SHEET MUSIC—ANYONE SENDING us the names of five persons that play on the Piano, we will send them postpaid FREE copy of latest Song or Two-Step. Southern Music Co., P. O. Box 30, Richmond, Va.

WOODWARD & SON, RICHMOND, VA.

Lumber, Laths, Shingles, Sash, Blinds, Doors, Frames, Mouldings, Asphalt Roofing. Yards and buildings covering ten acres.

SEND ONE DOLLAR AND RECEIVE by return mail receipt to kill Lice on all fowls, young and old. This is not a fake, but a true and tried remedy. M. W. Litton, Meadow View, Va.

BILTMORE FARMS

Six Bred Jersey Heifers, due to come in in December and January. Will make a close price on entire bunch.

Prepared to book orders for three and four months old Calves for September shipment.

A few Bull Calves out of outstanding cows, and at prices that anyone who appreciates good stock can afford to pay.

Get in your order before it is too late, as we expect to sell them as fast as they come along. The Biltmore High Standard and the Biltmore Guarantee is behind everything we sell.

Young Barred Plymouth Rock and White Leghorn Chickens for Sale. Eggs at marked down prices.

BILTMORE FARMS

R. F. D. No. 2,

Biltmore, N. C.

Milton Farm Berkshires

Herd Boars—Premier of Milton 113579; Duke of Kensington, 83046.
Pigs from 8 weeks to 6 months, \$10 and upwards. Mated pairs, \$18 and upwards.

JOHN E. MUNCASTER,

R. F. D. No. 4. ROCKVILLE, MD.



Ft. Lewis Stock Farm

THE BEST PLACE FOR BLOOD AND REGISTERED
BERKSHIRES

White Leghorn, all breeds of Plymouth Rock, Black Minorca and Rhode Island Red Fowls. Eggs from these pure-blooded birds for sale.

DR. W. L. NOLEN, PROPRIETOR, SALEM, VA.



the actors and other interesting people. They spoke very intelligently, and asked questions about theaters. When we left, they all gave us their cards, and asked for ours in return, but after a frantic search in our bag, we could not find one. We were often embarrassed in the same way when we forgot the Japanese custom of exchanging cards. We were rather exhausted at the end of an hour, and went to the Maple Club for tea. This is the most fashionable tea house in Japan, and is famous for the maple dance of the Geishas. No heavy boots are allowed within it, and the boys unlaced ours, and left them at the door. When we were settled inside, the girls brought us o-cha, (honorable tea) with cakes, shaped like red and green maple leaves. As we drank it, they chatted with us, tried on our rings, and did everything they could to earn there "chadai," or tea money.

Later we ventured on a whole Japanese dinner, served on the floor, on a small lacquer tray, and ate fish soup, raw fish with soy, rice, chicken and mushroom stew, sweetmeats and condiments washed down with hot sake, the national drink, brewed from rice. It is a light color and of mild flavor. Though a temperate people, the Japanese are all very fond of sake, and the servants all demand "sakate" (drink money).

As we struggled through our dinner with chopsticks a Japanese family nearby were endeavoring to eat a foreign dinner with knives and forks, and we could not keep from laughing at each other.

The best geisha dancing we saw was at a banquet given Admiral Togo at the Imperial. A stage was erected in the garden for the purpose, decorated with masses of exquisite chrysanthemums. The best dancers in the city, in the most gorgeous costumes, postured stiffly before us, and acted scenes representing the different emotions. It was more like pantomime than dancing, and is apt to become monotonous. Older girls played the plaintive samisen and sang. Still others fluttered among the guests like gay butterflies and contributed much to the success of the entertainment.

In the midst of these diversions we thought we had best do a little sight-seeing, and some friends, on leaving, turned over to us a guide they had employed for the purpose. He was a young fellow and told us he was a student guide, and had taken up the business to perfect himself in English, as he wished to join

GLENBURN BERKSHIRES.

Herd headed by Lord Premier 3d, 96773, Predominant 94342 and Eminent Premier 118253. Lord Premier 3d is a great son of Lord Premier 50001 and a brother in blood to Lord Premier's Rival. Predominant is a very handsome son of the grand champion Premier Longfellow 68600 and Eminent Premier is a grandson of both Lord Premier and Masterpiece. Our sows are bred along the same lines and are superb individuals.

Also Forfarshire-Golden Lad Jerseys. Write for catalogue.

DR. J. D. KIRK,

ROANOKE,

VIRGINIA.

CHOICE BERKSHIRE PIGS of the BEST BLOOD and QUALITY

If you want a pair or trio of pigs from the best and most prolific strains of Berkshires, write me. My sows are of the best blood of the breed, being daughters and granddaughters of Premier Longfellow, Baron Duke the 50th, and the noted Huntress.

Their litters are by my great herd boars, Hunter of Biltmore 3d, and Earhart's Model Premier.

These boars are a big, fancy type, are of the best prize-winning blood of the world and their pigs are the kind that will make you money.

Let me quote you prices on first-class pigs and ready-for-service boars.

I ship everything subject to your examination and approval and my prices are reasonable. Address,

D. E. EARHART, Bristow, Va.



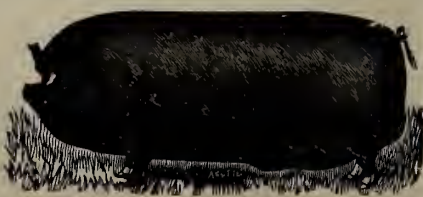
For Sale

BERKSHIRE GILTS

JERSEY BULL

Forest Home Farm,
Purcellville, Va.

HILLCREST FARM BERKSHIRES



Herd's Boars—Master's Compensation No. 94346; Sallie Lee's Last of Biltmore No. 111,687.

We have some extra good pigs, from two to six months old, and the boar pigs are good enough to head any herd.

The above pigs are out of daughter and granddaughter of Premier Longfellow, Masterpiece and Lord Premier and such other noted Berkshires. All stock as represented, or money refunded.

W. R. FENSOM, Richmond, Va.

MORVEN PARK ESTATE.

Property of WESTMORELAND DAVIS, Esq.

Large White Yorkshire Swine

THESE ARE THE BACON PIGS OF ENGLAND AND THE WEST. THEY ARE HARDY AND PROLIFIC. BOARS AND GILTS FOR SALE.

Registered Guernsey Cattle.

THESE CATTLE ARE ESPECIALLY USEFUL TO DAIRYMEN REQUIRING HIGH PER CENT. OF BUTTER FAT AND FINE COLOR AND FLAVOR OF PRODUCT TO SUPPLY THE BEST CLASS OF CUSTOM.

Bulls Only for Sale

Registered Dorset Horn Sheep

THESE SHEEP WILL BRING EARLY LAMBS WHEN PRICES ARE HIGH. TRY THEM. RAMS FOR SALE.

WE ARE OFFERING A FEW GRADE DORSET EWES FROM AN ADJOINING FARM WHICH, UPON ARRANGEMENT, CAN BE TOPPED BY OUR PURE BRED BUCKS. THIS IS AN EXCEPTIONAL OPPORTUNITY.

REGISTERED PERCHERONS

TWO-YEAR-OLD STALLIONS AND COLTS FOR SALE.

ALL OF OUR STOCK IS OF THE BEST CLASS, AND FROM STRAINS ESPECIALLY SELECTED AND IMPORTED BY US.

For further particulars, apply to

Live Stock Dept., Morven Park Estate

LEESBURG, LOUDOUN CO., VA



SHEEP!! CATTLE!!

Improve your farm and swell your bank account by stocking with Cattle and Sheep. We are in position to sell you good breeding Ewes and Feeding Lambs, also Feeding Steers, stock cattle and yearlings. Now is the time to buy, and in the spring and summer will sell your fat cattle, sheep and lambs at best market prices. We will sell you stock that will make you good money. Write us

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For Sale of CATTLE, SHEEP, LAMBS, HOGS, CALVES AND FRESH COWS

Best of reference furnished

OFFICE AND PENS:
UNION STOCK YARDS, RICHMOND, VA.

Established 1890. P. O. BOX 483
Phones: Office 1394, Residence 3224

the diplomatic service. He confided to us that he was much disliked by the Oriental Guides Association, because he was not a robber like they are. He came in the morning, wearing foreign clothes, but native sandals, and, as a finishing touch to his costume, he wore a bright, crocheted muffler around his neck.

We decided to go with him first to the Shiba temples. He carried us safely there, and gave a long harangue on them, lapsing from broken English into his mother tongue. This resulted in our having very confused impressions of some of the noblest works of Japanese art. He next carried us to the groves of the forty-seven Ronin, whose story is one of the most popular in Japanese history, keeping alive in the minds of the people a respect for harakiri, an ancient and honorable form of suicide for official misdeeds. Our guide proved so unsatisfactory that we paid and dismissed him at the close of the day, resolving for the future to depend on our rickshaw boys.

The next day we had a splendid trip with them to Neno Park, the most popular resort of the metropolis. Leaving our rickshaws at the gate, we walked up the broad avenue of cherry trees where, in April, all Tokyo assembles to see the pink blossoms. The poet, Motoori, says: "If one should inquire of you concerning the spirit of the true Japan, point to him the wild cherry blossoms, shining in the sun." Japan wakes up after a raw winter, and takes on new life when the cherry buds open. Booths and tea houses spring up on all sides in Neno where the pleasure seekers may rest, drink cherry wine, and compose those verses on the tender passion which they pin to the trees in memory of their visit.

To the left is the Lotus pond where, in August, this flower, the Buddhist emblem of purity, may be seen in its perfection. Truly, Japan (called by the natives, Dai Nippon) is the home of the beautiful and the land of flowers. The flower season lasts from plum blossoms in March to chrysanthemums in November, and next to

REDUCED PRICES ON

BRED BERKSHIRE GILTS



for next 30 days only.

The panic drove hundreds of breeders out of business. The next twelve months will see them tumbling over one another to get back—as the demand and prices advance. I staid in the boat, kept up my herd and advertisements, hence am well equipped for orders. My Berkshires are as fine as the world can produce. Price in easy reach of everyone. Scores of pigs ready for shipment.

THOS. S. WHITE,

Fassifera Stock Farm.

LEXINGTON, VA.

For Sale: Two Well Bred Jersey Bulls, 6 & 12 months old

Two-year-old and Yearling Guernsey Bulls.

Two grade Red Polled Heifers, one with Heifer Calf; other soon due.

BERKSHIRE AND YORKSHIRE PIGS

All in good condition and ready to ship.

M. B. Rowe & Co., Fredericksburg,
Virginia

IF YOU WANT THE BEST HOG

Buy from those who give their sole attention to the production of the greatest Berkshire Type
—WE DO.—

Our herd comprises the most splendid lines of breeding and individuals that money can buy or experience develop in American and English Bred Berkshires.

"LORD PREMIER OF THE BLUE RIDGE," 103555, the greatest living boar, heads our herd. If you are interested, write.

THE BLUE RIDGE BERKSHIRE FARMS, ASHEVILLE, N. C.

JERSEY CATTLE

I have decided to keep nothing but Registered Jerseys of the very best strains—blood that wins both in butter test and show ring. I therefore, offer some of my best cows and heifers that are pure blood Jersey, but are not registered. Some are out of registered cows and others by registered bulls.

Can furnish Registered Bulls ready for service.

Evergreen Farms,

W. B. GATES, Prop.,

Rice Depot, Va.



Allandale Registered Jerseys FOR SALE;

ABBOT OF ALLANDALE 84697

Sire, Baronetti's Golden Lad 67908; Dam, Friar's Lucy 171975. Born April 16, 1909.

THE handsomest young' bull we have ever seen. Pronounced by Mr. Spann (acknowledged to be a leading Jersey expert) as being the handsomest and best shaped calf he knows of. ¶ A beautiful golden fawn with white hind ankles and switch (the Golden Fern markings), possessing to an unusual degree, beauty of conformation, size and fashionable breeding. ¶ A certain blue ribbon winner at the Virginia State Fair this fall and a young bull fit to head a king's head. For particulars address

Allandale Farm, = Fredericksburg, Va.

ROSE DALE HERD ABERDEEN-ANGUS CATTLE



We offer to the farmers and breeders of the East strictly choice Young Registered Bulls from weanlings to serviceable age. They are of the straight, broad-backed, low-down, compact, blocky type. Many of them show ring animals. They represent the blood of Master II., of Meadow Brook; Gay Lord, Jr.; Heather Lad II., Zaire V., Ermine Bearer, Blackbird of Corskie IV., Black Abbott, Abbottsford, Coquette X., Etc.

They are well grown out, in thrifty condition, but not pampered. Come and see them or write us your wants. Prices right. We can please you. Angus cattle are our specialty. We raise no other stock but give them our undivided personal attention.

To avoid inbreeding we offer an exceptionally good herd bull. Write for particulars. Address

ROSEDALE STOCK FARMS, JEFFERSONTON, VA.

the latter those most esteemed are the iris, peony, wistaria, convolvulus, and azalea. Certain localities are famous for certain flowers which become almost objects of worship to the Japanese. The arrangement of bouquets is one of the fine arts

Continuing in the park, we saw some traces of the old conflict between the Royalists and the Shoguns, in bullet-riddled defences, and we paused before an image of Dai Butsu. We were getting tired of the tombs of the Shoguns, but a splendid avenue of stone lanterns led to these at Neno, and we could not pass them unnoticed without paying our respects. Beyond them were two trees planted by General and Mrs. Grant on the occasion of their visit to Japan, and these are now grown into flourishing shade trees.

"TRAVELER."

THE CAUSE OF EDUCATION IN VIRGINIA.

Article No. 1.

Virginia has always shown a lively interest in the cause of education, even in the very infancy of her existence, when beset with trials, hardships and dangers, incident to the life of pioneers amongst wild savages.

The project of a college for Vir-

Someone is going to get a first-class Angus herd header at

SUNNY HOME FARM

this coming fall. Sire a Jilt, sone of the great Erica bull Imported Equestor.

Dam sired by the world-famous Gay Blackbird (the sire of the \$3,050 Gay Lad that was champion of America during 1895-96). Second dam, a Nose-gay daughter of the great Beau Bill, champion during 1894 and sire of the dam of Vala, probably the most popular Angus female ever in the American Show Ring.

Imported Equestor's sire was Equestrian, one of the greatest bulls ever at "Ballendalloch."

Don't wait for the other fellow to get this first class bull, the product of the greatest champions of two continents, but write and have him booked for you at once. Write

A. L. FRENCH, Owner,

Byrdville, Va.

Moore's Brook Berkshire Herd

We have the best lot of Pigs this Spring we have ever had. This breeding cannot be excelled and they are equal to their breeding. Pigs ready to ship after May 5th. The Fall boars are fine ones. Bred sows for sale after May 14th. Some of these will be bred to a fine son of Lord Premier 50,001.



MOORE'S BROOK SANITARIUM CO., Charlottesville, Va.

POLAND-CHINAS & SHROPSHIRE



A promising lot of Pigs, sired by the Great Boars Big Jumbo 64275, and Dr.'s Corrector II. 72433. A few gilts and boars ready for service.

A choice lot of lambs sired by my imported ram, Altomoat's 666.

All stock warranted as represented or may be returned at my expense.

W. O. DURRETTE

Birdwood, Albemarle County, Va.



Birdwood Farm Percherons

IMPORTED AND HOME BRED MARES AND STALLIONS

We have the right kind; big, heavy-boned horses.

Our stud includes mares up to 2,200 pounds in weight.

Come and select what you want. Salesman always on the farm.



GAULATTE 48947 (71858) 1st prize 2-year-old mare, International 1908.

YEARLING COLTS,
MARES OR STALLIONS

AT

\$200 to \$300

PRICES ON MARES

FROM

\$375 to \$1,000

COLORS

BLACKS & GREYS

All Stock Registered
in Percheron Society of America

BIRDWOOD STOCK FARM, Birdwood, Albemarle County, Va. [2 MILES WEST OF CHARLOTTESVILLE]



Blacklegoids

FOR PROTECTING CATTLE AGAINST BLACKLEG.

SIMPLE—SAFE—SURE.

NO DOSE TO MEASURE.

NO LIQUID TO SPILL.

NO STRING TO ROT.

KRESO DIP FOR ALL LIVE STOCK

Kills Lice, Mites and Fleas. Cures Mange, Scab, Ringworm. Disinfects, Cleanses, Purifies.

ANTHRAXOIDS

A SAFE ANTHRAX VACCINE

FOR PROTECTING HORSES, MULES, CATTLE, SHEEP, GOATS AND SWINE AGAINST ANTHRAX.

WRITE FOR FREE BOOKLETS UPON THESE PRODUCTS.

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PARKE, DAVIS & CO.

DEPARTMENT OF ANIMAL INDUSTRY.

DETROIT,

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Hygeia Herd Pure-Bred Holstein-Friesians

It is no more expensive to maintain a good bull at the head of your herd than a poor one, and the former is certainly worth many times his cost. Therefore, write for pedigree and price on one of the richly bred bulls which this herd now offers for sale.

Address: W. F. Carter, Jr., Agent.

Crozet, Albemarle County, Virginia.

W. Fitzhugh Carter, M. D., Owner.

The breed holds the milk and butter records of the world; the herd embraces some of its best families.

ginia was agitated as far back as 1617, three years before the pilgrims landed at Plymouth Rock. It was debated in the first Virginia Assembly which met at Jamestown in 1619, but, after making a fair headway, the design had to be abandoned for a time on account of the Indian massacre. It was, however, taken up again from time to time, and finally a college was established at "Middle Plantation" (as Williamsburg was then called) in 1693 and named in honor of the ruling monarchs, William and Mary, whom the revolution of 1688 had placed upon the throne. In its antecedents this is the oldest of American colleges. In its actual operations, it is second only to Harvard. It holds a unique position amongst colleges, being the only one that received its charter direct from the Crown in Virginia, under seal of the privy council of England, for which reason it was called "Their Majesties' Royal College of William and Mary." It was also the only college that received its coat of arms from the College of Heralds in London. This coat is represented on the seal of the college and bears the date of 1694.

It was the first college in America to have a full Faculty, a president, six professors, an usher and writing master, as was the case in 1729. At that time the Faculty of Harvard consisted of a president, two professors and a corps of tutors.

The college course comprised:

1. A common school for the Indian children and white children of the neighborhood.

2. A grammar school for the study of the classics.

3. Two philosophy schools, one of moral philosophy, in which rhetoric, logic and ethics were taught, and the other of natural philosophy and mathematics.

History was always a favorite study in Virginia. The two first historical works written by professors in an American college were "The present State of Virginia," published in 1724 by Hugh Jones, Professor of Mathematics at William and Mary; and "The History of Virginia," by President Stith, in 1749.

There can scarcely be a doubt that

BIG MILKING, HIGH-GRADE OR REGISTERED

HOLSTEIN-FRIESIAN COWS

Are what the South needs. We furnish the kind that fill the pail every time they are milked. They are "mortgage lifters." Don't keep unprofitable scrubs. Send for free circular, "Cow Boarders."



We furnish cows that will give from 7 to 10 gals. per day and 5,000 to 6,000 qts. a year.

We recently sold Sweet Briar Institute, Sweet Briar, Va., a car of high-grade Holstein Cows. Go and look at them. They are fairly representative of what we offer.

We are responsible and furnish the highest references.

Two "Mortgage Lifters"—Milk Records of 12,000 lbs. Each a Year.

All mail orders will receive the same attention as if personally selected. Write to-day stating wants.

THE SYRACUSE BREEDERS' ASSOCIATION,

Utica, N. Y.

THE HOLLINS HERD OF HOLSTEIN-FRIESIANS

A WORKING HERD, WORKING EVERY DAY IN THE YEAR.

Holsteins are the BEST because.

Holsteins are larger and healthier than other dairy breeds;
Holsteins produce larger and healthier calves than other dairy breeds;
Holsteins yield more milk than other dairy breeds;

Holsteins yield more butter fat than other dairy breeds;
Holsteins produce milk that can be kept longer and shipped farther than that of other dairy breeds;

Holsteins produce milk more easily digested than that of other dairy breeds;

Holsteins are found in more countries, they occupy more territory and they probably produce more milk, cheese and butter than all others Combined.

Registered Bull Calves Out of Heavy Producing Cows for sale.

JOS. A. TURNER, Gen. Mgr.,

Hollins Institute, Va.

MEADOW FARM DAIRY **PURE BRED** Holstein-Friesians.

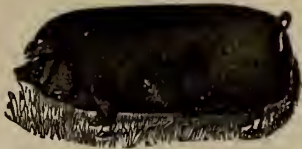
A WORKING HERD OF SEVENTY-FIVE
REGISTERED COWS--ALL FIRST-CLASS

Young Males and Females for Sale.

Address J. P. TAYLOR,
Orange, Virginia.



Pure Bred SHEEP, HOGS Cattle and Poultry



I am now prepared to ship promptly, Choice Ram and Ewe Lambs, Yearling and older Rams of the following breeds of Pure Bred Sheep:
Shropshire, Hampshire, Dorset, Southdown and Delaine.

Farmers, you should place your orders early, since prices will be higher in the fall.

I have an exhibition 200-pound Shropshire Ram as fine as they grow; price, \$50; Registered.

Imported 4-year-old Minton Ram, \$70, and he is a fine specimen of the Shropshire breed. Write to-day.

SPECIAL HOG BARGAINS.—300-lb. Duroc-Jersey Sow, with third litter of nine pigs, four weeks old; price of sow and pigs, \$60. 200-lb. Duroc-Jersey Service Boar, not related to above sow, \$25. Regis-

tered 250-lb. Berkshire Service Boar, a fine breeder, \$30. Registered Three-year-old Poland-China Sow, bred to registered boar, none better bred; price, \$50. Second litter Registered Poland China Sow, bred to registered boar; price, \$40.

I have other young sows bred for first litters; also young Service Boars, and two-, three- and four-months'-old Pigs of the following breeds, and can ship promptly. **Berkshires, Poland-Chinas, Chester Whites, Yorkshires, Duroc-Jerseys, and Tamworths.**

Address,

JAMES M. HOBBS

1521 Mt. Royal Avenue, BALTIMORE, MD.

Pure Bred Poultry and Eggs for Sale at all Times.

William and Mary had the first chair of Modern Languages in this country, embracing French, Italian, Spanish and German, and established in 1779. Regular lectures on political economy were given there soon after 1784. Adam Smith's "Wealth of Nations" being the text-book, the first use of that book in this country.

William and Mary College instituted the first school for the study of the practice of law in the courts, and for the study of American contributions. This chair had a continuous existence from 1779 to 1861, when the War occasioned its suspension.

William and Mary was the first to adopt the honor system, and the first to abandon the Oxford curriculum, and to adopt the elective system, early in 1779, under the auspices of Thomas Jefferson. The latter recommended to the Legislature in 1779 that the course of this college be widened into that of a University by adding schools of modern languages, law and medicine, and, being a member of the Visitoria Board, he introduced these changes at a meeting held December 14, 1779, the new Faculty going into office on the 29th of that month. From that time to the Civil War the college was known as the College or University of William and Mary. But enlarging the scope of William and Mary College did not satisfy Jefferson's aspirations for the cause of higher education. This cause was peculiarly dear to the great Statesman, and his love for it and efforts in its behalf constitute one of his many shining claims to fame and immortality. Crowded as his life was with duties, cares and responsibilities of the weightiest nature, he never lost sight of his ideal of the higher education. Whilst conducting the Louisiana purchase and other great public movements requiring consummate statesmanship, he ever kept in view his cherished plan of founding

LYNNWOOD STOCK FARM

PERCHERON STALLIONS

**SHORT
HORN**

Cattle

Berkshire

**SOWS
PIGS**

TWO FIRST-CLASS SADDLE STALLIONS.

NOW IS THE TIME TO BUY GOOD BREEDING STOCK.

Come to the farm (Lewis Station, N. & W.), and see the greatest representatives of the above breeds.

JOHN F. LEWIS

Lynnwood, Rockingham County, Va.



Scotch Collies

Farm raised, from pure bred stock, and all puppies eligible to registry. Our breeding stock is from best kennels in the country. Only healthy, active puppies are shipped. Colors, black and white, or sable and white. Male or female. \$5.00 each. Address,

**S. M. GEYER, Manager,
Norfolk & Western R'y Farm,
IVOR, VA.**

HILL TOP STOCK

We have for sale a limited number of Yearling Southdown and Shropshire Bucks, and some good barn Lambs of each of the above breeds.

Have also a few good Berkshire Pigs.

Have some fine Fox Hound Puppies (of pure Walker strain).

We are prepared, too, to furnish a few Yearling Bucks of either Hampshire or Oxford breeds, at as low a price as same class of bucks can be sold anywhere.

H. A. S. HAMILTON & SONS, SHADWELL, VIRGINIA.

Beadle Co., S. Dak., March 6, '09.
I received the sample copy of the Southern Planter and I cannot ex-

press in words the high opinion I have of it. It is simply perfect.
W. B. TAYLOR.

an institution which should place the higher education on an assured basis in the South.

About the year 1800 he began to plan the establishment of the University, but it was only by repeated and strenuous efforts that the embryonic institution gradually expanded into a University. Its genesis was as follows:

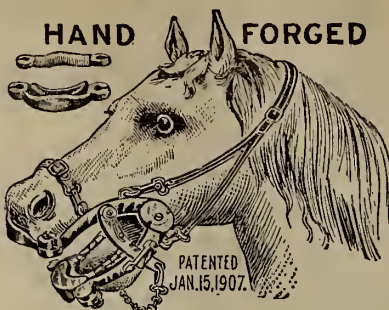
In 1803 the trustees of the "Albemarle Academy" were duly appointed and incorporated in Charlottesville, a village almost at the foot of the "little mountain," on which Jefferson had built his beautiful colonial home. Time passed and the project for the academy seemed about to fail when, in 1814, a new Board of Trustees, with Jefferson as a quickening force, was appointed. This academy then gave way to a more pretentious foundation, to be known as Central College. In the very year (1816) that Central College was established by an act of the Virginia Assembly, the bill in which the name "University of Virginia" first occurs, was defeated, but by so small a margin that one of its opponents moved that the bill be printed for the information of the people.

The site of Central College was chosen and the erection of one pavillion with flanking dormitories ordered. But this did not satisfy the friends of the higher education, and the matter was again brought up in the Legislature. Mr. Joseph Cabell, the intimate friend of Jefferson and his most efficient helper in this matter, led the contest with such tact and ability that finally a commission was appointed to make a report as to the proposed University and its site. Next to Jefferson, Mr. Joseph Cabell was the person chiefly instrumental in founding the University, and the memorial hall bearing his name testifies to the debt of gratitude the institution owes him. There were 21 commissioners, amongst them Jefferson, Miadson and many others bearing distinguished names. They reported favorably on the matter and, through Jefferson's strong influence, the site of Central College at Charlottesville was chosen for the proposed University rather than Staunton or Lexington, its competitors. Another legislative battle took place before the University was duly chartered. This was done on January 25, 1819, but it was not completed and formally opened until March 7, 1825.

Jefferson's taste was very artistic, but the people of his day were hardly prepared to value rightly the educational value of classic architecture, nor to think it justifiable to spend money so lavishly (according to the standard of those days) for such a purpose. Consequently, he met with a great deal of censure both on account of the cost and the character of the buildings, but we may gather from one of Tichenor's letters, writ-

THE P. & A. MOUTH SPECULUM

Simplest, Strongest, Safest.



Capable of sustaining immense pressure—two sets of dental plates—interchangeable—Introduced like ordinary bit—Can not possibly close of its own accord, or by jerking of the animal's head—Easily taken apart—weighs about four pounds.

Price, Net, \$9.00.

Write for catalogue of Veterinary Instruments, also catalogues of "Easy to Use" Instruments for cattle, for the horse, etc.

POWERS & ANDERSON, Inc., 30 N. 9th St., RICHMOND, Va.
VETERINARY INSTRUMENTS, SURGICAL SUPPLIES, ETC.

DUROC SWINE SHORTHORN AND POLLED DURHAM CATTLE.

The Duroc is the most prolific hog on earth. The large fairs of the West prove that they are the most popular hog of that section. The demand for them in the South shows conclusively that they are the coming hog of the South. We have the largest herd in the East and one of the most fashionably bred herd in America. Sows in pig, herd boars and shotes of both sexes, not related, for sale. Send for catalog and "Duroc Facts."

Shorthorn and Polled Durham cows, helpers and bulls for sale. See ad. elsewhere in this issue.

LESLIE D. KLINE, Vaucluse, Va.

JERSEYS and BERKSHIRES.

Sows bred, Boards ready for service. Pigs two and three months old. A few Jersey Cows for sale. I have some nice stock.

RIVER VIEW FARM, C. M. BASS, Proprietor,
Rice Depot, Virginia.

YOUNG REGISTERED HACKNEYS FOR SALE.

Two Registered Hackney Fillies, sired by General II., color, chestnut, two and three years old, respectively; and one Handsome Registered Hackney Stallion, by Hedrick (no kin to the fillies). These animals are especially breedy, well formed, and a good size for their ages. Address—

T. O. SANDY, BURKEVILLE, VA.

EXCELLENT

SHORTHORN HEIFERS AND BULLS.

By the Scotch topped Bull, Royal Lad (advertised by the old reliable breeders, P. S. Lewis & Son, as the best bull ever bred on their farm) by the International winner, Frantic Lad, son of The Lad for Me, champion of America in 1900. Also a few fresh Shorthorn Cows.

Pure Yearling SOUTHDOWN RAMS by Senator, a prize winner in Canada as a lamb and a yearling. He was bred by Hon. George Drummond, the foremost Southdown breeder in America.

J. HANCOCK & SON, "Ellerslie," Charlottesville, Va



FLY REMOVER Saved \$75.00

In Milk for a Customer who used it

On Five Cows in 90 Days

Kills and keeps off animals; Flies, Mosquitoes, Ticks, Lice and Insects. Cows give 25 per cent more milk, as they are protected and feed quietly all day. Horses work and drive better. Hogs and poultry are free from lice. Used for years by same dairyman. No Gad Flies or Warbles if it is used.

Special 30-Day Offer 1 gal. \$1.00, 3 gal. \$2.75, 5 gal. \$4.25, 10 gal. \$8.00, 25 gal. \$18.00, 50 gal. \$32.00. Hand sprayer to apply it, 65c. 4-gal. compressed air sprayer and whitewasher for applying in large dairies, \$5.00. 1 gal. will protect 300 cows. Money returned if animals are not protected. Terms Cash. Booklet Free.

Ripley Mfg. Co., Dept. V, Grafton, Ill.

ten in 1824, how these buildings impressed an intelligent visitor, well acquainted with University buildings both in this country and Europe: "The University of Virginia has cost \$250,000," he says, "and the thorough

finish of every part of it, and the beautiful architecture of the whole show, I think, that it has not cost too much. They have a mass of buildings more beautiful than anything architectural in New England

and more appropriate to a University than can be found perhaps in the world."

GRAIN CROP PREMIUMS AT THE STATE FAIR.

Growers of grain crops are reminded that the State Fair offers premiums for classes in which it is required that part of the exhibit shall be grain in sheaf. We would suggest to intended exhibitors that they bear this in mind before threshing out their crops and make up their exhibit sheafs.

ACRE YIELD CORN EXHIBITS AT THE STATE FAIR.

The premiums offered in the acre yield corn exhibits at the State Fair are two first ribbons to be awarded—one for corn grown on low grounds, and one for corn grown on high land. The first premium of \$75 will be divided between the winners of these two ribbons. Two second ribbons will be awarded in the same way and the second premium of \$50 will be divided in the same way.

AIMING HIGH.

John Allen, of Topeka, who while in Congress used to be known as "Private John," enjoys telling of a unique character near his home known as Jasp White.

Jasp had lived in single-blessedness a good many years, but finally in the evening of his life he married, and in due time an heir was born to him. The day after this momentous event Mr. Allen met Jasp in the street.

"I understand, Jasp," said the Private, "that you've a fine baby up at your place. Have you decided on his name?"

"Yes, suh," chuckled Jasp, "we's already decided on a name."

Jasp traced one toe reflectively in a semi-circle before him. "You know, suh," he said finally, "T's allus been a pow'ful han' fer dem Scripture folks, an' so I's decided t' name de kid after some o' dem big officers what de Bible talks 'bout. I's settled on de name Beelzebub."

"Beelzebub!"

"Yes, suh, da't de name!" announced Jasp, in a tone betokening finality. "Beelzebub's a mighty fine name, suh. It shore looks like I's as-nirin' pow'ful high, but I figgers dat boy'll shorelv do credit to his name-sake!"—Lippincott's.

APPLIED TO THE MOTOR.

Teacher: "What do you mean by the 'quick and the dead'?"

Boy: "Well, the quick get out of the way of the motor cars, and the dead don't!"—Lippincott's.

Marshall Co., Va., April 8, '09.


I subscribe to a number of farm journals but find the Southern Planter best of all.

CHAS. D. WILLIAMSON.

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*Absolutely Fireproof**European Plan*



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Our catalogue shows the most complete line of Silo Filling Machinery on the market. Don't forget the

ROSS SILO.



ENQUIRERS' COLUMN.

All inquiries must reach us by the 15th of the month previous to the issue, or they cannot be answered until the month following.

White Multiplier Onions.

Acting upon the advice of Professor Massey that the White Multiplier onions keep better than the Yellow Potato onions, I last year bought and planted the former. The product seems to multiply bulbs all right, but they have also formed seed pods on top of long tubular stems. Please say in your enquirers' column whether these are the genuine White Multiplier, and oblige,

W. C. NOWLIN.

Appomattox Co., Va.

I have grown a great many of the White Multiplier onions, but never knew one to make an effort to bloom or make seed. No onion in my experience that increases at the root has ever made seeds. But nature plays some queer tricks at times and plants make strange mutations and often change their habits. Therefore I could not say that the onions you planted are not of the true White Multiplier stock, but I should seriously doubt their purity. They never make as large onions as the Yellow Potato onion, but, unlike that variety, which is not a good keeper, they are remarkable in that respect, for I have kept them all winter and all the next summer and planted them the next fall and had them grow well when they were overlooked at the proper planting time the fall after they were grown.—W. F. Massey.

Seeding Crimson Clover on Wheat Stubble.

While lecturing at an institute in this State last winter, Professor Massey spoke of successfully sowing crimson clover on a wheat stubble, the only preparation being a discing. Will Professor Massey kindly outline in the July issue of The Planter how this may best be done, depth disc should cut, and other preparation, if any, for best results? Could crimson clover be sown to advantage with a crop of cowpeas on land fallowed after removing wheat from the land and make a good clover crop for the land the following winter? Or, would the cowpea vines (which are also to be left on the land) smother the clover? J. A. W.

Charles Co., Md.

I have seen very good crops of crimson clover grown on wheat stubble with no preparation at all, except to let the rag weed start and mow it and the tall stubble off and sow the seed. But it is better to mow the stubble after the rag weeds have started, and then disc the stubble lightly so as to give the seed a better chance to germinate and still have

Thomas Phosphate

(Basic Slag Meal)

AN AVERAGE ANALYSIS

Molsture	0 1-10 Per Cent.
Total Phos. Acid	17 to 19 Per Cent.
Avall. Phos. Acid	15 to 16 Per Cent.*
Lime	35 to 50 Per Cent.
Magnesia	5 to 6 Per Cent.
Iron	13 to 14 Per Cent.
Manganese	7 to 9 Per Cent.

*Wagner Method.

Results

MARYLAND EXPERIMENT STATION.

	Grain. Lbs.	Fodder. Lbs.	Total. Lbs.
Soluble Phosphates	11,298	15,618	26,916
Basic Slag.....	11,795	16,059	27,854

WRITE FOR FREE PAMPHLET.—“A Remarkable Fertilizer, Basic Slag and its Uses.”

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Nitrate of Soda

Dried Blood
Muriate of Potash

Sulphate of Potash
Dried Fish

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CHARLESTON, S. C.

Lee's Prepared Agricultural Lime

The great crop grower and land improver. Never fails when properly used to give perfect satisfaction. It prevents rust and scab on wheat and oats, and insures a good stand and growth of clover or other grasses.

Lee's Special Wheat Fertilizer

Grows in favor and sales every season. We hear of no rust or scab, but all say the crop is increased eight to ten bushels of wheat, of fine quality, and they have fine stands of clover or other grass.

Imported Thomas Basic Slag

This valuable fertilizer is used almost exclusively in Europe on fall crops, such as grasses and turnips as well as grain. It has several advantages over our phosphate. It is insoluble in water, and being much heavier than the soils, is not washed away by heavy rains, but remains where distributed until dissolved by the humic acid of the roots of plants. It also contains forty to fifty per cent. of free lime. Its lasting results make it a cheap as well as good fertilizer.

Lee's High Grade Bone and Potash

For potatoes, cabbage and other crops. Constantly on hand Land Plaster, Agricultural Lime, carload or less.

—Manufactured By—

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The Greatest Soil Improver Known

If you have never used *Peruvian Guano*, you have never realized the greatest possible yield from your land

No known fertilizer is the producer of such bumper crops.

When you buy Peruvian Guano, you know that you are buying the best fertilizer to be procured.

With proper cultivation, there is no doubt of its producing larger yields than any commercial fertilizer.

What It Is.

Peruvian Guano is a product of nature, and contains ingredients which chemists have never been able to put into fertilizer

It consists of the excrement of the birds that congregate on the rocky coast of Peru and nearby islands; as well as the remains of the birds themselves.

On account of the food on which these birds live, this fertilizer is rich in certain elements.

These elements are in different forms, some quickly active, some slower, and some still more slow, which thus nourish the plant from start to maturity.

There has never been any doubt as to the supremacy of Peruvian Guano as a fertilizer, but, owing to the out of the way places where it is found, the supply has been limited.

Many of the older farmers remember the enormous yields produced with it years ago. For the last few years it has been hard to procure. Enough could not be bought to supply the demand of the farmers who had tried it, and who were enthusiastic about it.

We have recently made arrangements to import it in considerable quantities direct from Peru.

Your soil probably needs just such a soil-improver.

You want big crops. You want to enrich your soil.

Peruvian Guano will do both.

Peruvian Guano costs more and is worth it.

The increased crops it will produce will be worth far more to you than the saving of a few dollars in the cost.

Best By Test.

So sure are we of its worth that we welcome a comparative test with any commercial fertilizer.

Order a few tons, and use it on your wheat crop, and; when the harvest comes, compare the results with that of any other land on which you have used other fertilizers.

We want you to write for our booklet about this wonderful fertilizer—a product of nature.

It will be sent free together with prices upon request.

PERUVIAN GUANO CORPORATION

RICHMOND, VA.

CHARLESTON, S. C.

some trash on top as a shade to the young clover from the sun, as it is frequently damaged or killed by the sun in its early stages. I believe that the plan of plowing the land well and sowing cowpeas with a wheat drill, mowing them for hay and then slightly stirring the pea stubble and sowing in early September would be an improvement, especially if you harrow in a good dressing of acid phosphate or basic slag for the peas. I think that in Charles county you can have good success in sowing in early September, or, if the peas came off in time to sow in August. Then, after sowing the seed, if the soil is dry and the land not inclined to wash, I would roll it. But I would never roll steep hillsides, for loose places will be left for the rains to start gullies. Sowing clover seed with the peas is generally unsuccessful, because the rank growth of the peas is apt to smother the clover. But if the peas are not to be removed from the land, you can wait till they ripen and begin to drop their leaves and then sow the clover among them with no preparation of the soil at all. But I would prefer to cut the peas and cure them.—W. F. Massey.

Bloody Milk.

Is bloody milk an indication of tuberculosis of the udder? Can I have the milk examined for tuberculosis?
A. B.

Bloody milk is no indication whatever of tuberculosis of the udder. Bacterial examinations of milk for tubercle bacilli are altogether too uncertain to be of practical value. Inflate the udder with sterile air once exactly as is done in cases of milk fever. This has proven the most successful treatment in cases of cows giving bloody milk.

JOHN SPENCER.

Expt. Station, Blacksburg, Va.

Peanuts on Crimson Clover Fallow.

Will Virginia peanuts succeed planted on a crimson clover sod, and what preparation should be given the soil before planting peanuts?

Sussex Co., Va. R. M. WHITE.

There is some difference of opinion amongst peanut growers as to planting peanuts immediately following a leguminous crop like crimson clover or cowpeas, some contending that the result of tests go to show an injury rather than a benefit to the crop. A crimson clover or cowpea crop will put the land into good condition for peanuts, but the crop should not be planted until the following year after the clover or cowpeas have been plowed down. There may be some force in this view, as it is known that the bacteria on the two crops are not the same and they may be antagonistic to each other. To succeed with peanuts, they should be grown in ro-

BIG WHEAT YIELDS

Wheat requires a fertilizer that contains ammonia in different forms, some slow, some active, to provide gradual and continual food to the plant from start to maturity.

There is one fertilizer that does this—one that is Nature's own provision for wheat crop—one which contains ingredients that the chemists have never been able to put into fertilizer. It is genuine old

Peruvian Guano

Old farmers of Virginia and the Carolina's recall the splendid crops grown with Peruvian Guano years ago. No fertilizer discovered has ever equaled it for producing enormous yields.

Your land probably needs just such a soil improver. Order one or two tons and compare the results with those from any commercial fertilizer.

Write for prices, and full information.

Agencies still open in some localities.

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The cement bought by the U.S. Government for the Panama Canal

SEND FOR OUR FREE BOOK "Concrete Construction about the Home and on the Farm." Contains over 100 drawings and illustrations.

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B. HAMMOND, Fishkill-on-Hudson, New York.

Ground Phosphate Rock

Superior to Bone or Acid Phosphate for Alfalfa and Clover, and at one-fourth the cost. See editorial, June issue this paper, "Alfalfa In Eastern Virginia."

FARMERS' UNION PHOSPHATE CO., BIRMINGHAM, ALA.

tation with grain and leguminous crops, but the peanuts and the other legumes grown should not immediately follow each other.—Ed.

Smut in Wheat.

Please advise me the cause for blackheads in wheat, and the remedy, if any, known to prevent them. I sowed fifty bushels of wheat last October after peas and my wheat is very promising up to this time for a large yield; in fact, it is all that I could wish for, but, for the immense number of blackheads, which will cut down the yield at least 5 per cent.

I bought my seed from a limestone section of Virginia, and the seed was firstclass, but, of course, know nothing of what per cent. of blackheads were in the wheat which produced the seed that I sowed. The variety sown is Fulcaster, which is a bearded wheat, and seems to be especially adapted to my section.

I will sow perhaps seventy-five bushels this fall. Would you advise using the wheat which I raise this year for seed in which the blackheads are so numerous?

Patrick Co., Va. J. C. DeHART.

Your crop is infested with smut. There are two varieties of this disease—the stinking smut and the loose smut. For the stinking smut there is no certain remedy yet discovered, though formalin as advised for the loose smut is probably the best thing to use. For the loose smut, which is the variety I think you are troubled with, the remedy is to soak the seed in a solution of formalin, one pound to five gallons of water, before sowing it. The seed should be allowed to soak in this solution for an hour or a little more and then be dried and sowed. If you will carefully treat your seed wheat with this formalin solution, I do not think you need fear to sow your own seed for your next crop. Hot water is a remedy also for the smut, but it is more troublesome to use, as you must keep the heat of the water up to 132 degrees for fifteen minutes whilst the grain is soaking in it. Below 132 will not kill the smut spores, and above 135 degrees will injure the germination of the seed. The grain should be put into a loose woven sack holding about a bushel, and this be dipped into the hot water and this be moved around in the water so as to wet every grain well.—Ed.

Warts on Cow.

I have a cow with warts on her udder and mostly on her teats. They begin to grow when she freshens and disappear when she goes dry. Please advise what to do, and will it be advisable to use the milk?

J. E. DRUMMOND.

Accomac Co., Va.

If the warts on the teats are hard,

Real Free Trial of This Waterloo Boy

A Square-Deal Stringless Offer

that you can accept without risk. Take the engine—test it thoroughly for 30 days after receiving it, until you've proved by actual work on your farm that the **Waterloo Boy** is the engine for you. If not satisfied, send it back at our expense.

You can't get better or cheaper help for your work than the **Waterloo Boy Gasoline Engine**. Saws as much wood per day as eight men—does all the odd jobs on the farm—saves you time, money, work—and costs you just **5c a day**. The **Waterloo Boy** has stood a test of 17 years' hard service.

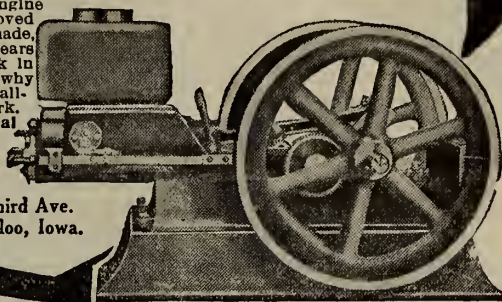
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It'll last a lifetime. So simple anyone can operate it; economical—fuel used only when work is being done; the lightest engine made per horse power—easily moved from place to place; a perfectly made, strong, safe engine that'll give years of hard service and never balk in any weather. Let us show you why the **Waterloo Boy** is the best all-round engine for farm work. Send for catalog and our real free trial offer.

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WRITE FOR CATALOGUE.

J.B. WATKINS & BRO, Midlothian, Va.

dry ones, with a hard, dry neck, clip them off with a pair of scissors and touch the place where cut off with caustic, potash or lunar caustic. If they have fleshy necks, tie them round with a silk cord and tighten this every day or two until they cease to grow and drop off. The warts will not affect the milk.—Ed.

Spanish Peanuts—Sweet Potatoes and Irish Potatoes for Chicken Feed.

1. Are not Spanish peanuts more valuable for chicken feed than to sell them to jobbers or recreamers at three cents per pound and the best way to prepare them for the chicks?

2. Will sweet potatoes, cooked and fed whole or mixed up with any food, make good feed for chickens?

3. Can Irish potatoes, when they can not be marketed for 50 cents per bushel, be profitably fed to chickens?

We can raise any amount of these crops. Of Irish potatoes we can raise two crops a year. Occasionally the spring crop rots before they can be marketed at a reasonable price. The fall crop will keep fine and we usually get one dollar per bushel.

JOHN SEABURG.

Wilkinson Co., Miss.

1. No doubt Spanish peanuts ground into meal and fed with corn or other grain meal would make a good feed for chickens, but we doubt whether it would pay better than selling them at three cents a pound if a heavy yield of the crop is secured by proper fertilization and growing of the crop in rotation is practiced.

2 and 3. Both sweet and Irish potatoes can be fed to chickens boiled and mixed with meal into a mash with advantage as a change of diet, but neither of these crops has any special merit as a feed crop for hens. They are carbonaceous feeds requiring to be balanced with protein to make them effective. The peanut meal mixed with them would balance the ration and might make together a fair ration. Protein feeds are more needed for securing eggs and good growth of chickens than carbonaceous ones. A yield of three hundred bushels of Irish potatoes per acre will pay at even less than eighty cents a bushel, and this yield ought to be made. The spring crop should always be sold as dug, as the tubers will not keep long.—Ed.

Silo Building.

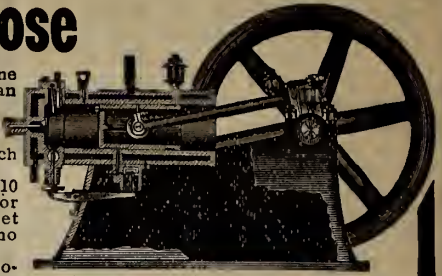
I want to build a small silo. Can I build it of tongue and groove flooring in an octagon shape as it would be easier to construct than round? Must the floor be air tight? Must the roof fit down tight or leave room for ventilation? Can I put the corn in a silo in long lengths as it grows or will it have to be cut in short pieces? Can the corn be cut and

McVicker Gasoline Engines For Every Purpose

We build McVicker Automatic Gasoline Engines in all styles and sizes. We can furnish Horizontal Stationary Engines of from 2 to 30 Horse-Power. Our Automatic Portable Engines, mounted on Steel Trucks and equipped with Friction Clutch Pulleys, are from 4 to 20 Horse-Power.

We also supply the McVicker, 2 to 10 Horse-Power, mounted on skids, ready for immediate use, without having to be set up or connected with piping. Needs no foundation.

We build a Portable Wood-Sawing Gasoline Engine that is very popular. Every reasonable power requirement of farm or shop is met by the simple and adaptable McVicker Gasoline Engine.



1/3 the Parts of Any Other Gasoline Engine

The extreme simplicity of the McVicker gives it an immense advantage over all competitors. It develops more actual horse-power than any other gasoline engine of the same rating—at less cost for fuel. Its governor is so perfect in action that the McVicker will stand 50 per cent of sudden overload without slacking.

These are only a few of the great exclusive features that have put the McVicker so far in the lead. Write for Free Catalogue, which tells the whole story. Tell us what farm machinery you would like to run with a McVicker Engine and we will send you PLANS AND SPECIFICATIONS FOR A FARM POWER HOUSE—FREE. Write at once.

ALMA MANUFACTURING COMPANY, Station L, ALMA, MICH.
Nearest Salesroom ALMA MFG. CO., 703 St. South, Minneapolis

THE LITTLE SAMPSON ENGINE and BOILER.

\$250.

F.O.B.

Petersburg, Va.

The best engine made—simple efficient and powerful. Runs any kind of farm machinery—just the thing for wheat threshers and peanut pickers. Mechanically perfect, and develops 5 H. P. (Guaranteed.) Every part guaranteed against defects.

Write for full information about this unusual offer.
Agents Wanted.

STRATTON & BRAGG CO.,

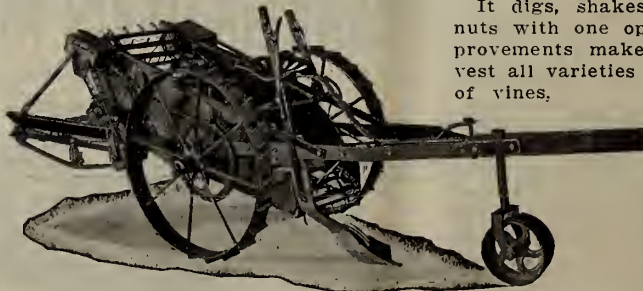
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The American Peanut Harvester Does the Work of Seven Men

It digs, shakes and piles the peanuts with one operation. Recent improvements make it possible to harvest all varieties regardless of growth of vines.

We want live agents, and make special introductory price on first machine sold in also make machine each locality. We fines for planting and picking.



WRITE FOR BOOKLET AND PRICES.

NOTE.—If you intend to harvest peanuts with machinery, plant them in uniform rows, not less than two and one-half feet apart. Work well, and lay by on a uniform ridge, taking care not to leave bumps in the middle of the row. Plant two or three rows parallel to fence or ditch for convenience in turning at the end of rows.

American Peanut Harvester Corporation
PETERSBURG, VA.

1909.]

packed in the silo the same day without injury? SUBSCRIBER.

Northumberland Co., va.
Yes, you can build an octagonal silo, though we prefer a round one, as the silage settles better and more completely in this form than in any other. All corners are objectionable in a silo, as they tend to hold the silage and make pockets in which air lodges and injures the keeping of the product. The best floor for a silo is a good, hard clay one.

Yes, you can put the corn in without cutting it, but it will not make as good silage and is much more difficult to get out for feeding. We would always cut it into half-inch lengths with a cutter and then you are certain to have good feed. Put the corn into the silo as soon as it is cut down.

A roof is a matter of perfect indifference to the keeping of the silage. When the silo is filled the top of the silage should be covered a foot thick with chaff or cotton seed hulls or coarse swale hay, and this be well watered and packed down. It will then become filled with mould and thus exclude the air and keep the silage good. What water falls on it will not hurt the silage. A silo looks better with a roof over it, but it serves no purpose in keeping the silage.—Ed.

Plants for Name—Mildew on Roses.

I am sending you three plants for name. No. 1 supposed to be some sort of clover, came up in alfalfa. No. 2 also came up in alfalfa, and No. 3 found growing in vetch.

Crimson rambler roses are badly mildewed. Please give cause and remedy. C. W. B.

James City Co., Va.

No. 1, alsike clover; No. 2, wild radish; No. 3, Scotch thistle.

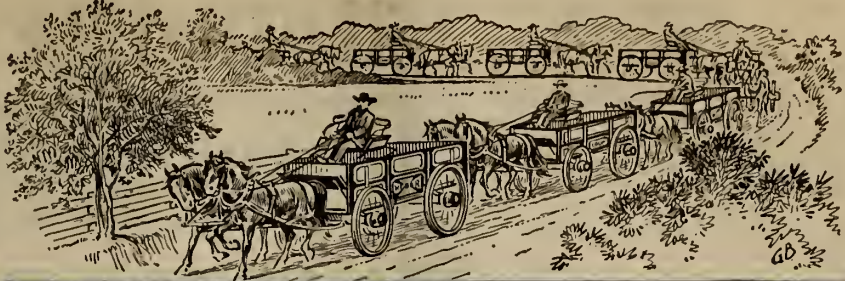
The mildew may be stopped by dusting the bushes with sulphur.—Ed.

Hog Pasture—Strawberries, Raspberries and Blackberries.

Will you kindly advise:

1. What mixture of clover or grasses will make the best winter grazing for hogs? I would like to turn hogs on this pasture about the first of December.

2. What varieties of strawberries, raspberries and blackberries are best adapted to high land of fairly rich sandy loam for this section of Virginia, and when is the time to put them out? Would Pennsylvania-grown



WAGONS

The farmer is particular about the kind of wagon he buys—and rightly so—because a wagon is used nearly every day in the year. Note the following special features of the Weber, Columbus and New Bettendorf wagons, each one of which is built to give satisfactory service.

WEBER

For sixty-three years the name "Weber" has been the best guarantee as to the quality of a farm wagon. No other wagon is made better than the Weber—no other wagon is made with so much care. The Weber, king of all farm wagons, is the I. H. C. standard of excellence in wagon construction. Everything used in building Weber wagons is the best that the market affords—ironed on the made-to-order principle—painted as good as the average buggy.

COLUMBUS

The Columbus farm wagon compares favorably with other high grade wagons in quality of wood stock, ironing, painting and finish and has many points of special merit not found on other high grade wagons. All the running gear parts except the axles are the best quality of oak. The axles are select black hickory. The gears are well ironed, the rear hounds being ironed full length on the bottom.

NEW BETTENDORF

The New Bettendorf farm wagon is exceptionally strong, durable and light running. The gears are made entirely of steel, have greater carrying capacity than wood and weigh no more. There is never any trouble with loose skeins, season checks, improper seasoning or inferior quality of materials, such as is common on the ordinary wagon. The tubular axle is made in one piece. There are no joints at the collar and the removable malleable iron sleeve which protects the axle from wear is not found on any axle except the New Bettendorf.

Call on the nearest International agent who will be pleased to show you the meritorious features in the construction of the wagon he handles. Ask him for illustrated booklet and lithographed hanger, or if you prefer write us.

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I do not want the Southern Planter to stop as I get so much good advice from it.
C. H. CROPP.

Campbell Co., Va., March 25, '09.
I think the Southern Planter is the best and cheapest agricultural paper printed.
SAML. H. MILLER.

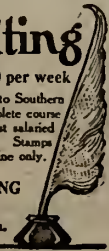


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SOUTHERN ADVERTISING JOURNAL,
Dept. Richmond, Virginia.



plants do all right, or should home-grown stock be put out?

Henrico Co., Va. "AMATEUR."

1. Sow ten pounds of crimson clover, five pounds hairy vetch, and half a bushel wheat, oats and rye, mixed in equal parts, and two pounds Dwarf Essex rape per acre.

2. Strawberries, Bubach No. 5, Clyde and Tennessee. Raspberries, Cuthbert. Blackberries, Early Harvest. The strawberries may be set out in the fall or in the spring. We prefer fall planting. The raspberries and blackberries should be set out in the spring. We prefer to plant local-grown plants, as they are already acclimated and usually do best.—Ed.

Grass for Name.

I enclose sample of grass of which I should be pleased to have the name, and its value, it is an evergreen and grows anywhere, makes fair pasture grass on poor land. R. S. RAYNER.

The grass is one of the Poas, of which there are several varieties growing indigenously over the State. They are all valuable as pasture grasses.—Ed.

Turkey Buzzard—Lima Beans—Irish Potatoe Scab—Chickens Paralyzed, Etc.

1. Do you think a turkey buzzard to be a greater spreader of disease among domestic animals than the hawk or crow?

2. I have been told that lima beans when planted with the eyes down would grow better than planted otherwise. Of course, this method should only be used when the beans were planted on a small scale. Do you deem it necessary or of any use to plant in this manner?

3. Will the Irish potato continue to grow when vines are dead?

4. Several of our chickens have become paralyzed, some of which died. We are unable to account for their condition. We are also lacking a remedy for this affliction and will be greatly obliged if you will name one to us.

5. When cowpeas are grown to be turned under for fertilizer, at what period of their growth is it best to turn them under?

6. Can you explain to me why a crop of green peas grown in Western North Carolina after July first are not as good as ones grown earlier? The vine is weak and spindly and bears a smaller quantity of peas.

7. I planted pole beans with a certain portion of my corn this year and, wishing to plant more corn and pole beans, I ask whether to plant them together or not. Are both crops planted together harmful to the soil?

8. By what means can we keep cut-worms off our cauliflower and cabbage? Also birds off strawberries,

REVERSIBLE DISC PLOWS

For Two or Three Horses

Do Their Work "A Comin' and a Goin'"

The Plows that do the best work anywhere and everywhere—hillside or level land—hard ground or soft ground—sticky ground or trashy ground—are the

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Act quickly, before the assortment is broken. Printed lists with prices mailed to out-of-town buyers on request.

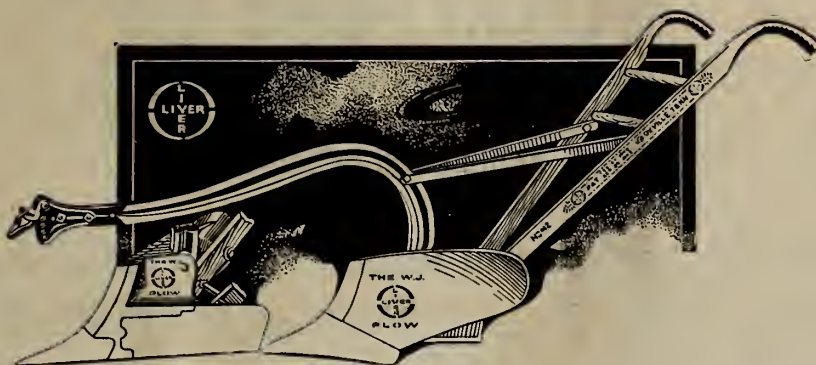
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RICHMOND, VIRGINIA.**

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The Wm. J. Oliver Mfg. Co.

KNOXVILLE, TENNESSEE.

N. B.--WHY Don't Other Manufacturers show LANDSIDE views of their Plows?



and pigeons from picking the corn out of furrows?

9. What does the soil need to prevent potatoes from becoming scabby? Is the soil or potato in fault?

10. Our onions were planted about March first and are not a great deal larger now than when planted. They are nearly all tops and going to seed. Is there a way to prevent their going to seed and to make the onion grow?

FRANK O. HARTSHORN, Jr.,
Asheville, N. C.

1. Yes; much. The turkey buzzard is naturally a devourer of diseased dead animals which are full of the germs of the disease from which they died, and which are by the buzzards carried on their feet and feathers to other places to infect clean lands and water and so spread disease. The hawk and the crow will not eat carrion or birds or animals dead from disease. They catch and kill healthy chickens and small animals and carry no disease germs from these.

2. This is true. The lima bean germinates better planted with the eye down.

3. No. No plants of any kind will grow after the leaves are dead. The leaves are the lungs of the plant, and without them the plant dies.

4. We expect the cause of the so-called paralysis is the disease called "limber neck," which is really ptomaine poisoning, caused by eating decomposing animal flesh. It is incurable. All dead animal matter should be burned so that the fowls cannot get to it, and then you will have none of this trouble.

5. The leguminous crops should be turned under after they have attained their maturity and begun to die down. They then supply the most nitrogen to the soil and the vegetable matter is most readily turned into humus, as it is then freer from water and will not sour the soil as is often the case when turned into warm soil when in full growth. These crops are best cut into the land with a disc harrow rather than plowed down, as the roots, which have on them the nitrogen carrying nodules, are not then exposed to the air to waste this nitrogen, but it is kept in the soil where its beneficial influence is needed for the feeding of the following crop.

6. The English or Canada pea is a cold climate crop and does not succeed well in the South after the hot weather sets in. It is then subject to mildew and dies down.

7. Yes; plant the beans and corn together. The two crops help each other. The corn holds up the beans and the beans gather nitrogen from the air and this helps the corn.

8. If by cut-worms you mean the worms which eat off the young plants as soon as set out, which are the true cut-worms, these can only be prevented from doing injury by killing them with poisoned bait before the plants are set out, or by putting pro-

CONCERNING THAT ROOF

Write us for prices on our products.

We carry in stock at all times

EVERYTHING for the ROOF

PAINTED AND GALV. V. C. AND CORRUGATED SHEETS; TIN PLATE IN BOXES AND ROLLS; RUBBER ROOFING UNDER THE FOLLOWING BRANDS:

Victoria Rubber

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Lowest Market Prices without sacrifice of Quality

VICTORIA METAL CO., Inc.

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You Can Cover Your Roof With

Mycoroid Rubber Roofing

And Then "Forget It."

Because it requires no coating.

It is absolutely waterproof.

It is practically Fire Proof.

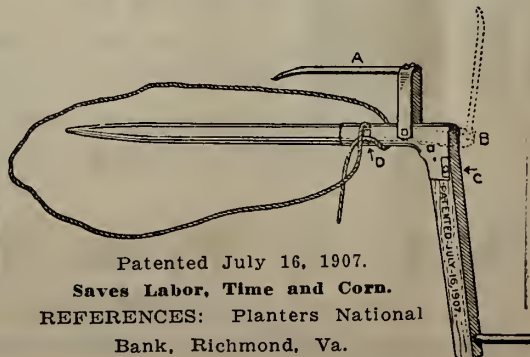
It does not taint water

Write for Samples and Booklet.

We also carry a full line of Galvanized and Painted Corrugated and V Crimp Roofing in rolls and boxes

McGRAW-YARBROUGH CO., Richmond, Va

SMITH SHOCK BINDER



Patented July 16, 1907.

Saves Labor, Time and Corn.

REFERENCES: Planters National Bank, Richmond, Va.

Far in the lead of all competitors for effectiveness, simplicity, durability, handiness and cheapness. Made of the best wood, steel and Manila Rope, and will last for years. ONLY ONE MAN required to operate it, and he alone can bind a shock a minute. Saves binder twine and your corn shocks will not fall or be blown down, or get wet inside. No farmer can afford to be without this Labor Saving Implement. One day's use will pay for it. Order the Binder TODAY, and if you are not satisfied, return it, and we will refund your money.

Sent express prepaid for \$1.75. Agents wanted.

THE SMITH SHOCK BINDER CO., RICHMOND, VA.

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¶ Both the cotton ginner and the cotton grower profit by the perfection of the MUNGER System Gins. The ginner profits by increased capacity, economy of operation, freedom from breakage and repairs and the Southwide prestige reputation of the

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[THE PERFECT SYSTEM]

¶ The grower patronizes the MUNGER System because close ginning means best turn-out and "Munger System" means best sample.

¶ MUNGER System Gin Outfits may be had of any capacity. Choice of Munger, Pratt, Eagle, Winship and Smith Gins. Engines, Boilers, Linters and every cotton machine between field and loom.

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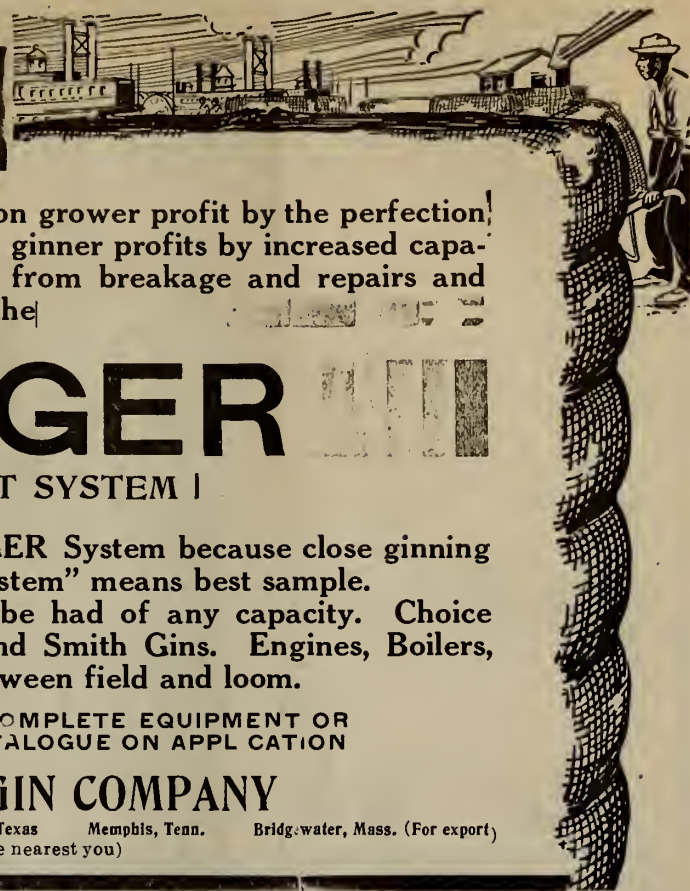
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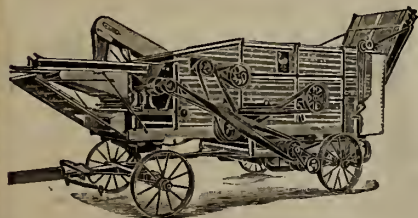
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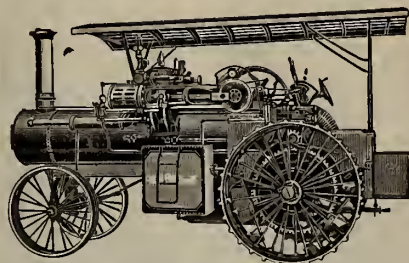
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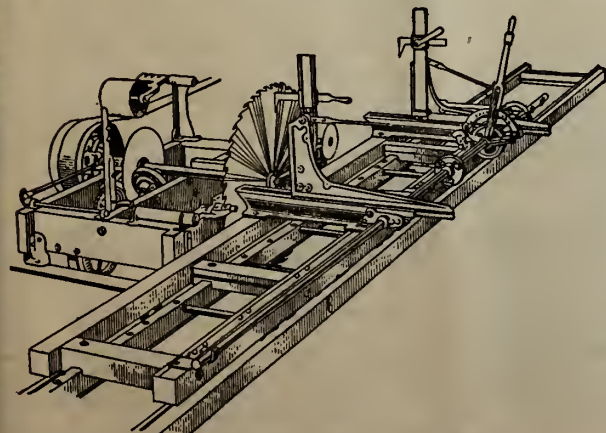
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Engines
Threshers
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MODERN, UP-TO-DATE IN EVERY RESPECT.



Machinery built to give the best

SATISFACTION

Catalogues on application to Home
Office, Mansfield, O., or

W. K. Bache, Salesman,
RICHMOND, VA.

tectors of stiff paper around each plant when setting them out. Cabbage leaves or clover dipped in Paris green solution and dropped at intervals in the field where the plants are to be set out will be eaten by the cut-worms and poison them, if this is done before the plants are set out and there is nothing else for the worms to eat. If by cut-worms you mean the worms which eat the leaves of the cabbages after they commence to grow, then these are not true cut worms but the larva of the cabbage butterfly. They can be killed by spraying the plants with Paris green solution or by dusting them with Pyrethrum or Persian insect powder. The Paris green solution can be used safely before the heads begin to wrap, but we do not advise its use after the cabbages are becoming nearly ready for cutting, as some of the green may then become wrapped in the heads and might cause sickness in those eating the cabbage. The Pyrethrum powder is harmless. The only way to deal with the birds is to shoot them.

9. The scab on the Irish potato is a fungoid or spore disease, which is propagated on the skin of the tubers and will infect the soil with these spores and cause it to appear on later crops planted in this infected soil. Potato sets should be dipped in a solution of formaline or bichloride of mercury to kill the spores of the disease before they are planted. We have published the formula for these dips several times. You will find it in the March issue. When soil has become infected with these spores, it should be limed and not be planted in Irish potatoes for a year at least.

10. It is evident that your soil is not well adapted to growing onions or the sets you planted were not of a good type. There are in nearly all onion crops some of a type given to growing thick necked or scallions, as they are called. These should be always destroyed and neither seed nor sets be used for growing another crop. Run a roller over the onions and crush down the tops. This will divert the strength of growth into the bulbs and may help you to get some return from the crop, but the crop will not make the yield it ought to do. Seasons also have considerable to do with this excessive top growth. —Ed.

Soils Not Holding Improvement— Souring Land.

1. Is it true that some soils will not hold improvement? I hear this from all the neighbors.

2. It is true that a late fallow of heavy crops of pea vines, etc., will not sour land like it would in August?

3. Would you advise to wait till after frost to turn under heavy crops of vegetation?

THOMAS H. TRAVIS.
Pittsylvania Co., Va.

Yes. A soil with a loose, open,



Country Water Works Outfit

You can have running water anywhere you want it, in the house, the barn, or on the grounds—in fact you can have all the conveniences that can be obtained from connection with city water works—by erecting on your place a

GOODHUE WINDMILL

and tank outfit such as is shown here. We can give you the tank on a separate tower if you prefer it that way.

Goodhue Windmills have an engine way top (they work like an engine); they have double arms of heavy channel steel, giving more than double strength; they govern perfectly in all kinds of wind; they have a practically noiseless brake; they are made in sizes and styles to meet all requirements, and they are sold under a stronger guarantee than any other. Send to-day for FREE WINDMILL BOOK.

APPLETON MFG. CO.,
134 Fargo St., Batavia, Ill., U. S. A.

Don't Go to the Spring or Well Have the Water come to You

For over twenty years we have been installing successfully, complete water supply systems, and they are performing their good work to-day.

With our force of experienced workmen, we are better prepared to supply your needs in this direction than any concern south of New York.

We make a specialty of supplying **Country Homes** with pure, fresh water, and at a moderate cost.

We are not tied down to any system, but are prepared to install the outfit which is best adapted to your particular needs. We are largest house in the South, dealing in water supply outfits, **Pumps, Windmills, Gasoline Engines, Rams, Pressure Tanks, Cypress Tanks and Towers.**

Catalogue and prices on any of the above will be sent on request.

Sydnor Pump & Well Co., Inc.

Department "B," Richmond, Virginia.

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Tell the advertiser where you saw
his advertisement.

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Splendid Style
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Explain why the celebrated, Solid made BATTLE AXE SHOES are
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THE FARMER'S FRIEND

Stephen Putney Shoe Co., - Richmond, Virginia.

NATIONAL PNEUMATIC WATER SUPPLY

FOR COUNTRY AND SUBURBAN HOMES.

Gives all the advantages of a city water works and furnishes fire protection, which reduces insurance rates. The accompanying sketch shows a complete water system, bath and kitchen plumbing.

In connection with our WATER SYSTEM and plumbing equipment, we furnish plans and specifications and equipment for the construction of septic sewer tanks which will dispose of your sewage in a most satisfactory manner.

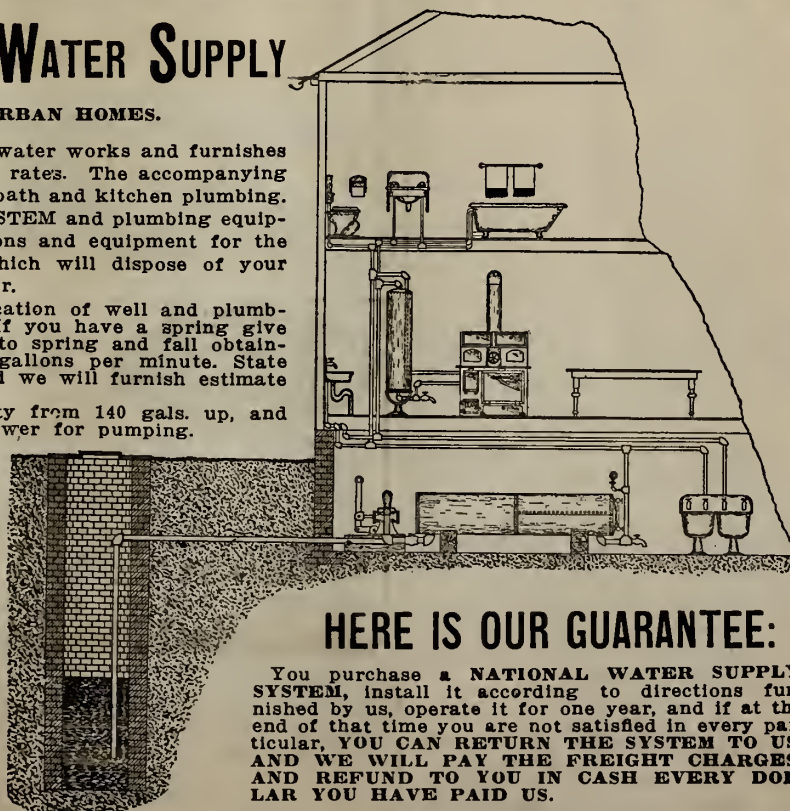
Send us rough sketch showing location of well and plumbing fixtures and give depth of well. If you have a spring give distance from house, fall from house to spring and fall obtainable in spring, branch, and flow in gallons per minute. State how much water required per day, and we will furnish estimate of cost free.

We furnish system in any capacity from 140 gals. up, and for the application of any kind of power for pumping.

Get our prices on WINDMILLS,
GASOLINE ENGINES, HOT AIR
ENGINES, PUMPS OF ALL KINDS,
AND HYDRAULIC RAMS. IN-
QUIRE ABOUT OUR BURNSON
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**GRAHAM DAVIDSON &
COMPANY,**

Richmond, - Virginia.



HERE IS OUR GUARANTEE:

You purchase a NATIONAL WATER SUPPLY SYSTEM, install it according to directions furnished by us, operate it for one year, and if at the end of that time you are not satisfied in every particular, YOU CAN RETURN THE SYSTEM TO US, AND WE WILL PAY THE FREIGHT CHARGES, AND REFUND TO YOU IN CASH EVERY DOLLAR YOU HAVE PAID US.

leachy subsoil will not hold improve-
ment. The subsoil should be clay,
preferably a red clay.

2. A fallow of pea vines or clover
should not be turned under when the
soil is warm, or it will sour the land
unless lime is applied as soon as the
fallow is turned down. The proper
time to turn down such a fallow is
in the fall or early winter, after the
vines have died down.

3. We would wait until the vegeta-
tion is dying or nearly dead.—Ed.

Cooking Kohl Rabi.

Will you be kind enough to tell
me how Kohl Rabi is prepared for
the table. A SUBSCRIBER.

Goochland Co., Va.

Pare and boil like turnips and serve
either plain or with a thickened white
sauce seasoning with pepper and salt
and butter.—Ed.

Merino Sheep—Ground Tobacco Stems —Gasoline for Worms.

1. I wish to get a Merino buck, are
there any to be had in this State?

2. When can ground tobacco stems
be had.

3. Is gasoline still regarded as the
best remedy for stomach worms in
sheep and lambs? If so, how much
should be given to a ten or fifteen
pound lamb? X. Y.

Culpeper Co., Va.

1. We do not know of any pure-
bred Merino sheep kept in this State.
There are a number of fine flocks
kept in West Virginia of different
types. If you will write to the Di-
rector of the Experiment Station, Mon-
gantown, West Virginia, he will no
doubt be able to give you the ad-
dresses of some of the breeders or
the Commissioner of Agriculture of
the State, Charlestown, West Virginia,
will likely be able to do so.

2. You can get ground tobacco
stems or tobacco dust from the seeds-
men in this State who advertise in
The Planter. Pretty nearly all the
stems produced on this market are
shipped to Louisville, Kentucky, to a
concern which uses them for making
tobacco extract for dips, etc. Waste
tobacco leaves can generally be had
from tobacco growers for feeding to
sheep. Trash lugs which are not
worth shipping to market are sold for
this purpose.

3. We prefer to feed tobacco stems
and trash to combat the worms rather
than gasoline. We have very satis-
factory reports as to results from the
use of tobacco. See an article in this
issue. Gasoline is a remedy used with
success, but it is a very drastic one,
and often fatal in use.—Ed.

Is Horse Sound?

Is a horse sound when he has corns?
New Jersey. H. E. TENER.

We should say no. No veterinarian
ought, in our opinion, to pass a horse

Pictures Against Talk

NO matter how complicated his cream sep-
arator, every "bucket bowl" manufac-
turer claims his machine is simplest and
easiest to clean. Even the makers of disk
machines—with 40 to 60 pieces inside the
bowl—make the same claims. Yet none
of these "bucket bowl" fellows dare
put pictures of their separator bowl
parts into their advertisements—they
all realize that pictures would
make their claims ridiculous.

The Sharples Dairy Tubu-
lar Cream Separator is, with-
out exception, the **only** sim-
ple, sanitary, easy to clean
separator made. We put pic-
tures against "bucket bowl"
talk. We frequently show you
pictures of the light, simple
Dairy Tubular Bowl and of
heavy, complicated "bucket



One pan contains the single little
piece used in Sharples Dairy Tubu-
lar bowls. The other contains noth-
ing but disks from a single "bucket
bowl." Which is simple and easy
to clean?

bowls." Compare them. They tell the whole story. It will take you less
than thirty seconds to put "bucket bowl" claims where they belong.

The self styled "original maker of disk machines" is trying to maintain
sales by patent infringement suits against equally cheap machines, that have
been made for several years with disks like his. If you want to avoid work,
expense and dissatisfaction, get a Sharples Dairy Tubular. Made in the
world's biggest and best separator factory. Branch factories in Canada and
Germany. Sales greater than most, if not all, "bucket bowl" separators
combined. Write for catalog, No. 290.



The Sharples Separator Co.

Toronto, Can. West Chester, Penna. Portland, Ore.
Winnipeg, Can. Chicago, Ills. San Francisco, Cal.

CLARK'S DOUBLE ACTION HARROW & CULTIVATOR FOR 100% CROPS

With this tool more different kinds
of work can be done,
with less effort, than
with any other. CLARK'S is the only Disk Cultivator that completely embodies the double action principle. It will do the work of several disk machines that would cost you several times as much, and do it more thoroughly, because it has 4 gangs instead of only 2. The draft is always from centre—suitable for 2 light horses. Equipped with Extension Head and Jointed Pole, and when so ordered two large disks for Listing are supplied.
Send today for our free Book, "Large Hay Crops."

**CUTAWAY HARROW COMPANY,
861 Main St., HIGGANUM, CONN.**

THE
ORIGINAL
"CUTAWAY."

as sound with corns or with indica-
tions that he has suffered from corns,
although at the time he might not
walk lame.—Ed.

Chess or Cheat?

Excuse me if I ask once more the

question I thought settled: Will wheat
turn into chess? You will answer
positively, No; but how will you ex-
plain why my wheat is full of it this
year? That the chess seed was not
in the land before the wheat was
sown is proven by the fact that all

HENRY FAIRFAX,
President.

ALFRED B. WILLIAMS,
1st Vice President.

SAM'L COHEN,
2d Vice-President.

O. J. SANDS,
Treasurer.

1909

VIRGINIA STATE FAIR

1909

RICHMOND

OCTOBER 4-5-6-7-8-9—"The First Week in October"

In the former issues of the Southern Planter announcements have been made of attractive cash premiums offered for exhibits of Farm Products, embracing in same CORN, WHEAT, GRASSES, VEGETABLES and the other FIELD, SEED, GRAIN, FORAGE and ROOT CROPS.

KING CORN SPECIAL.

This great special now amounts to nearly TWELVE HUNDRED DOLLARS in cash and \$125.00 CORN BINDER, and it is confidently expected that BEFORE the FAIR is held TWENTY-FIVE HUNDRED to THREE THOUSAND DOLLARS will be on hand to distribute among OUR Growers of Corn. The test will be to select and send to the Fair and enter either the best single ear, the best ten ears, the best twenty ears of white and yellow corn. Two-thirds of the total amount raised will be paid to winners of white corn; one-third to winners in the yellow corn classes. The Binder and all implements donated will be awarded exhibitor best single, ten and twenty ears, white or yellow. A JUDGE, or JUDGES of NATIONAL reputation will make the awards, and every dollar raised will be paid exhibitors. This Association offers the following secondary prizes in the King Corn Contest:

	2nd	3rd	4th	5th	6th	7th	8th
10 ears White Corn.....	\$10 00	\$7 50	\$5 00	\$2 50	\$1 50	\$1 00	\$ 50
10 ears Yellow Corn.....	\$10 00	7 50	5 00	2 50	1 50	1 00	50
Single ear White Corn.....	7 50	5 00	2 50	1 50	1 00	75	50
Single ear Yellow Corn.....	7 50	5 00	2 50	1 50	1 00	75	50

ACRE YIELD CLASSES.

These classes embrace large Cash Premiums for Corn raised on high land and low grounds, and also for grasses—alfalfa (one cutting only).

COUNTY EXHIBITS.

A First Prize of \$100, Second of \$75.00, Third of \$50.00 will be paid in the County Exhibit Class.

PEANUTS.

Virginia produces a large part of the total PEANUT CROP, and the classes and premiums offered should interest all growers. THE AID AND SUPPORT OF THOSE INTERESTED IN THIS INDUSTRY IS URGED AND REQUESTED.

TOBACCO.

The following prizes will be paid in the Tobacco Classes. Be sure and send your exhibits

(Exhibits to consist of one sample, grown by exhibitor, weighing not less than five pounds, nor more than eight pounds.)

	1st Prem.	2d Prem.	3d Prem.		1st Prem.	2d Prem.	3d Prem.
Sun Cured, Crop of 1909.....	\$30 00	\$15 00	\$5 00	Brown Shipping, Crop of 1909.	30 00	15 00	5 00
Olive Stemming, Crop of 1909..	30 00	15 00	5 00	Brown Stemming, Crop of 1909	30 00	15 00	5 00

BRIGHT TOBACCO CROP, 1909—"FLUE CURED."

	1st Prem.	2d Prem.		1st Prem.	2d Prem.
Wrappers	\$10 00	\$5 00	Fillers	10 00	5 00
Cutters	10 00	5 00	Smokers	10 00	5 00

RICHMOND TOBACCO TRADE—SWEEPSTAKE.

For the Best Sample of Tobacco of above classes grown in Virginia by an exhibitor in above classes, sample to weigh not less than five nor more than eight pounds

LIVE STOCK.

An indispensable feature of every farm, in order to bring together even better exhibits than those which have reflected such great credit at the last three annual fairs. The classification in the

HORSES, CATTLE, SHEEP AND SWINE

Departments have been greatly enlarged, and adequate prizes are now offered for every breed of commercial importance. In order to show how complete the classification is, one section of the Swine Department is copied:

BERKSHIRE.

Boar, 2 yrs. or over.....	\$10 00	\$6 00	\$2 00	Sow, under 6 mos.....	6 00	4 00	1 00
Boar, 18 mos. and under 2 yrs.	8 00	5 00	2 00	Get of one Boar.....	10 00	7 00	3 00
Boar, 1 yr. and under 18 mos.	8 00	5 00	2 00	Produce of One Sow.....	10 00	7 00	3 00
Boar, 6 and under 12 mos.	8 00	5 00	2 00	Exhibitor's Herd.....	10 00	7 00	3 00
Boar, under 6 mos.....	6 00	4 00	1 00	Breeder's Young Herd.....	10 00	7 00	3 00
Sow, 2 yrs. or over.....	10 00	6 00	2 00	Brood Sow and Six Pigs.....	10 00	4 00	2 00
Sow, 8 mos. and under 2 yrs.	8 00	5 00	2 00	Championship	10 00	Rest Ribbons.	
Sow, 1 yr. and under 18 mos.	8 00	5 00	2 00	Boar, any age	10 00	Rest Ribbons.	
Sow, 6 mos. and under 12 mos.	8 00	5 00	2 00	Sow, any age	10 00	Rest Ribbons.	

An Appeal

Is again made for the hearty support and aid of the farmers of Virginia. It is your Fair. Get acquainted with the numerous offers—the Premium List containing more than THREE THOUSAND CLASSES will be ready for mailing on July 10th. Send us a postal with your address on it; a copy will be mailed you FREE of COST.

The Fair is Here to Stay. "THE FIRST WEEK IN OCTOBER."

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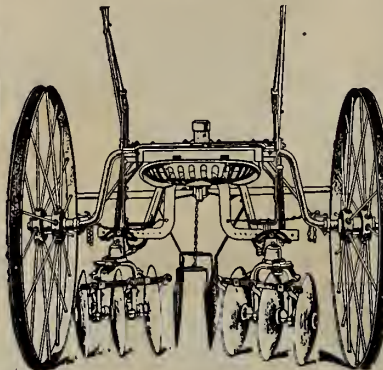
plants stand in the drill rows with the wheat, none between the rows, and I never saw any chess in that lot. Therefore, it must have been in the wheat I sowed. I had no chess in my wheat last year; ran the wheat over a good smut mill, soaked it in bluestone, as I always do, but, after putting it in bags ready for sowing, it rained a little, which delayed the sowing for two or three days. I did not think it would injure the wheat, but it did, as it came up very thin, not more than one-half or two-thirds coming up, and now a good part of that is chess. Further, there was no chess in the separator which threshed my wheat, as I let it run empty a while before we started threshing for fear there might be some mayweed seed in it, which I abhor more than any other weed. CHRIS RICKERS.

Lunenburg, Co., Va.

We have so often and so fully discussed this chess or cheat question and allowed the same to be so fully ventilated pro and con through the columns of The Planter that we must decline again to re-open the subject for discussion. It is absolutely certain that neither wheat nor oats will change to chess or cheat. Chess is a distinct plant from either wheat or oats and can only be produced from its own seed. This seed is more hardy and persistent than either wheat or oats and, where the wheat or oats are killed out or fail to grow, chess or cheat will often come in to supply the missing crop. The seed is either sown in the wheat or oats or it has lain dormant in the soil from previous seeding and germinates because the opportunity comes when it can do so by reason of being brought within the influence of the sun and air and in the absence of another crop to smother it down. It is certain that nothing you did or can do will change

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the nature of the wheat or oats and result in a crop of ches. What you did may have weakened the germinative power of the wheat and the ches then supplanted the wheat because the seed was more resistant to injury than the wheat. You either sowed ches with your wheat or it was already in the land, notwithstanding all the precautions you took to avoid it.—Ed.

Feeding Colts.

Will you give me the amount of feed that should be given to a mule and horse colt the first year, second year and third year, both corn, oats, and hay to keep him growing? I can turn him out in summer to grass.

St. Mary Co., Md. READER.

A fair allowance of grain for the colt measured in oats, which is the best grain to feed to growing colts, as they provide material for bone and muscle building rather than fat-making food like corn is, up to one year of age, from two to three pounds per day. From one to two years of age, four to five pounds per day. From two to three years of age, seven to eight pounds per day. With this grain should be fed all the good, sweet, well cured hay the colts will eat.—Ed.

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Berro, 41821, trotter, bay horse, 4, by Bingar, son of Bingen, 2:06¼, dam Keshena, by Kremlin, 2:07¾.

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Pimples on Horses.

Two of my horses have pimples the size of a chestnut on neck and shoulders, and where harness rubs them they make sores. Will you kindly suggest remedy? SED.

These pimples are probably caused by a too heating or stimulating diet in this hot season. Cut off the corn or reduce it considerably and let the horses have grass or clover instead. Bathe the skin with extract of witch hazel or with a solution of oak bark made by boiling oak bark in water. Where the pimples have been chafed until broken, apply vaseline mixed with sugar of lead—one ounce vaseline to half a dram of sugar of lead—and see that the collars and harness are washed clean and fit comfortably and are padded so as not to irritate the skin.—Ed.

Weeds in Alfalfa for Name—Alfalfa Dying Out.

I have two acres of alfalfa which was seeded September 4, 1909, on which I used two tons of lime, one ton 16 per cent. acid phosphate, and two hundred pounds 50 per cent muriate of potash; also, about one ton unleached hardwood ashes. The soil is a good loam and was broken eight to

ten inches deep and thoroughly cultivated. Sowed fifty pounds inoculated seed got a splendid stand, and cut it five times last year, and it was comparatively clear of weeds. March first, last, I put on about one ton of ashes. Have just cut it and it is full of ches, sorrell and other weeds, and in one place a moss-like weed, which has completely eaten out the alfalfa. I enclose sample of it and would like to know what it is and how to get rid of same. Also, tell me the cause of alfalfa dying out; mine is not more than one-fifth as thick as it was last year. OLD SUBSCRIBER.

Mecklenburg Co., Va.

The plant sent is Knawell (German knot grass). It is an annual of somewhat the same habit of growth as chickweed. It is not likely that this weed will kill out the alfalfa, but it will take possession of the ground if the seed is there after the alfalfa has begun to fail. It should not be allowed to mature seed and then it will not come the next year. Your alfalfa is failing because of lack of food in the soil to maintain the draught made on the land by the heavy crops you have grown. You ought to have fed the crop after the last cutting by applying a heavy dressing of acid phosphate or bone meal,



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or, better, a mixture of the two, say, 200 pounds of each per acre, and 50 pounds of muriate of potash per acre. The sod should have been cut over with the disc harrow with the disc run straight and then this fertilizer applied as a top dressing. This would have renewed the growth which would then have smothered down the weeds. We would do this now and try to set it to growing again.—Ed.

THE WITTY WARDEN.

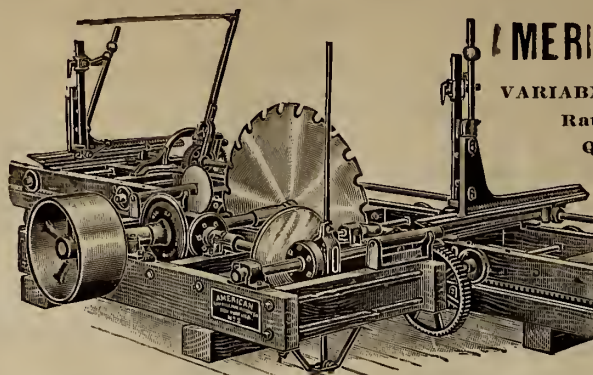
"You'd hardly expect to find a sense of humor in prison officials," says an American representative on the International Prison Commission, "but during an inspection made by some Americans interested in penal matters of a penitentiary in England, one of us was thus surprised:

"I presume," observed the American, 'that here, as elsewhere, you prison officials find existence painful enough.'

"I think you may fairly say so, sir," replied the warden, with a grim smile, 'seeing the number of felons we have on our hands.'—Lippincott's.

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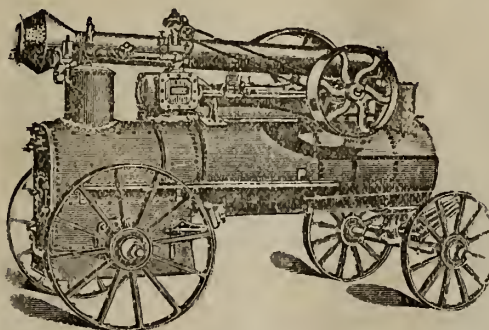
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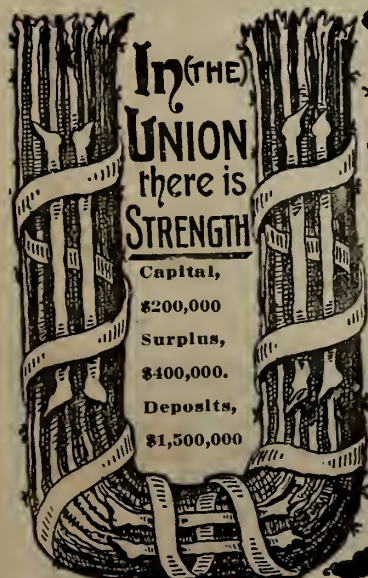


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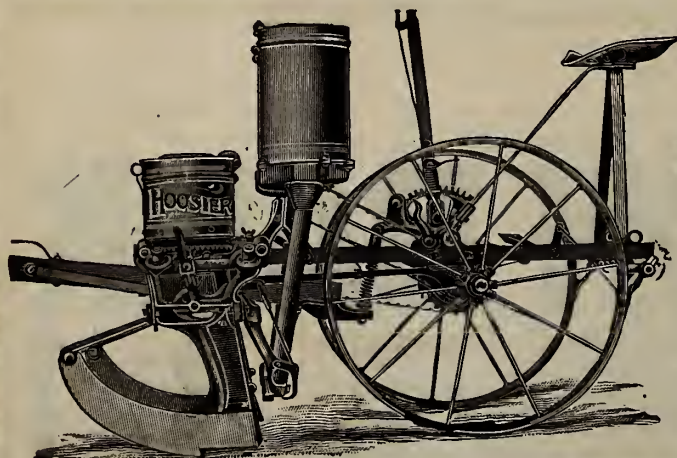
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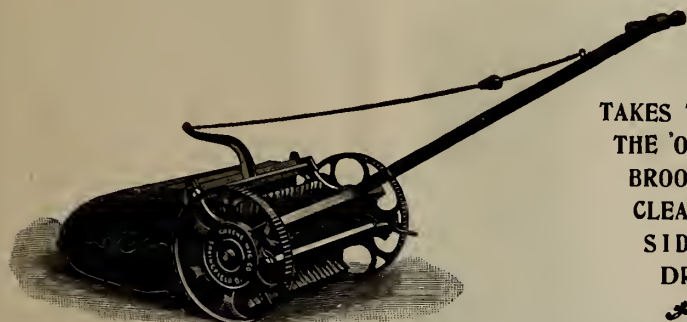
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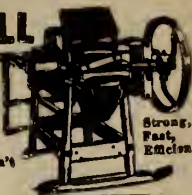
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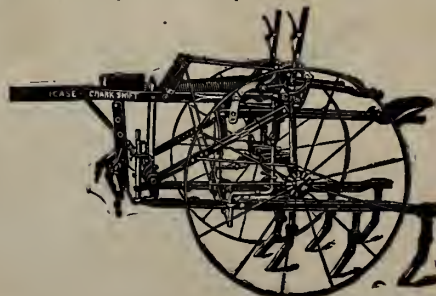
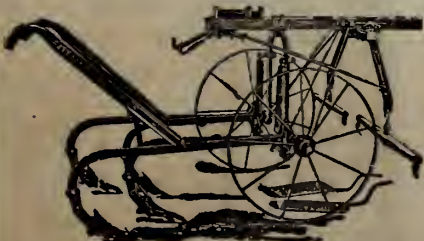
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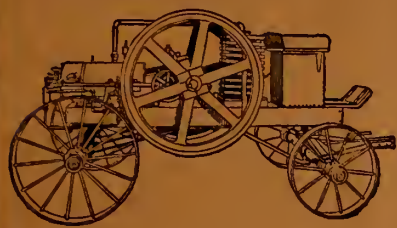
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— THE SOUTH'S MAIL ORDER HOUSE —

Farmers & Merchants, Attention!

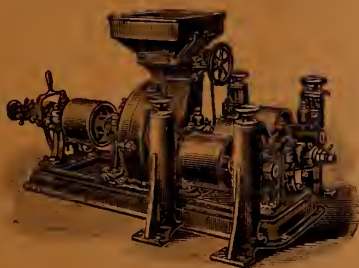
THE WATT PLOW CO.

1426 East Main St. and 1438 East Franklin St., RICHMOND, VA.



want, and for Catalogue.

The world's famous Monarch "Corn Meal and Feed Mill." Genuine French Burrs. To be appreciated it must be tried.



Agents for R. & V. and Alamo Gasolene Engines from 2 to 20 Horse Power. Write us for prices on sizes you



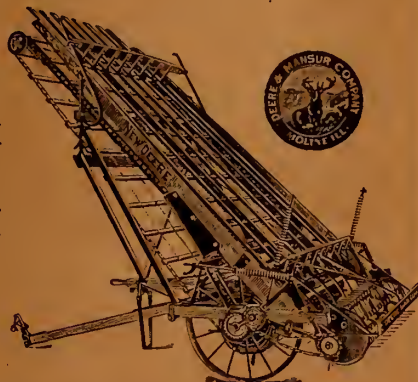
The Sharple's New Tubular 'A' Different from the others. Always in the lead. Not a 'Has Been,' but a 'Right Now' Cream Separator

The finest line of Runabouts, Top Buggies and Surries always carried in Stock.



The Largest Dealers in Agricultural Implements, Vehicles, Harness, Saw Mills, Gasolene Engines, Cider Mills, Etc.

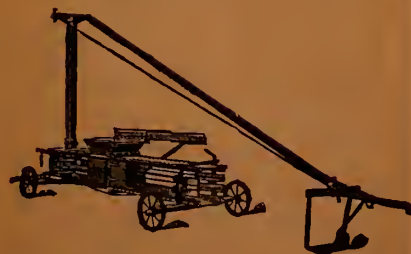
The New Deere Hay Loader. It loads any kind of hay cleanly and rapidly without breaking or injuring in any way. Write for special circular.



Cast-Iron Roller.

The Hocking Valley Cider Mill. The best on the market. Has wooden crushing roller and steel teeth, which does not discolor the cider or give it the taste of the

Agents for Dain Hay Presses Both Horse Power and Steam Power.



For Sale by **THE WATT PLOW COMPANY,**
RICHMOND, VA

1426 East Main Street, - - - 1438 East Franklin Street.

The Northwestern Mutual Life Insurance Co.

Is Paying out and Investing in both VIRGINIA and NORTH CAROLINA more than it receives from these States

New Business in Virginia, 1908

\$2,147,800

Larger than any other Company



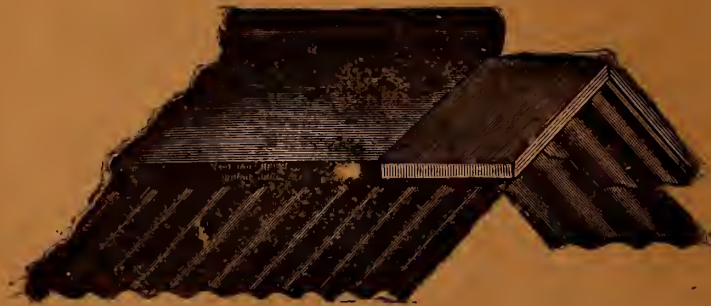
Gain in Insurance in force in Virginia,

1908, \$1,374,975

60% More than the Next Largest

T. ARCHIBALD CARY, General Agent for Virginia & North Carolina
RICHMOND, VIRGINIA.

- - Corrugated V-Crimp Roofing - -



Painted and galvanized

"Bestoid" Rubber Roofing

Carey's Magnesia Cement Roofing

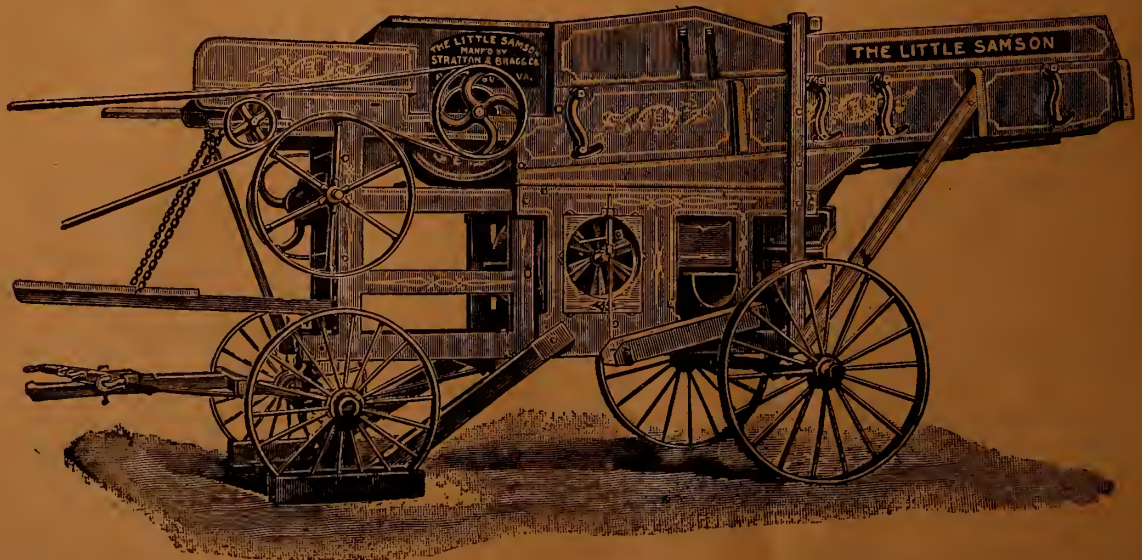
Tarred Paper, Tin Plate, Lime, Cement, Hardware, Terra Cotta Pipe, Wire Fence, Drain Tile, etc.

SEND FOR CATALOGUE

BALDWIN & BROWN.

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THE LITTLE SAMSON PEANUT PICKER AND GRAIN THRESHER COMBINED



The above machine can be bought as a Peanut Picker and at a small additional cost the Grain Threshing Attachments can be secured, which will enable the same machine to thresh Grain; or we can furnish a straight grain machine for grain only.

Simplest, lightest and most durable machine on the market, and sold at reasonable prices. Furnished either mounted or unmounted. Write for prices. Also see our advertisement on another page of our Little Samson Vertical Engine with Pickering Governor.

STRATTON & BRAGG CO.,

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